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BRITAIN'S BEST SELLING MAGAZINE FOR THE

CPC 464 • 6128 PLUS

GX4000 CONSOLE

ISSUE 63
DECEMBE
1990
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AMSTRAD ACTION



ALL GRAPHICS AND NO GAMEPLAY?

Shadow of the Beast stunned on the Amiga. But exactly how good is the Amstrad version?

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50 BEST GAMES OF 1990

The games you simply *must not* miss!

AND...

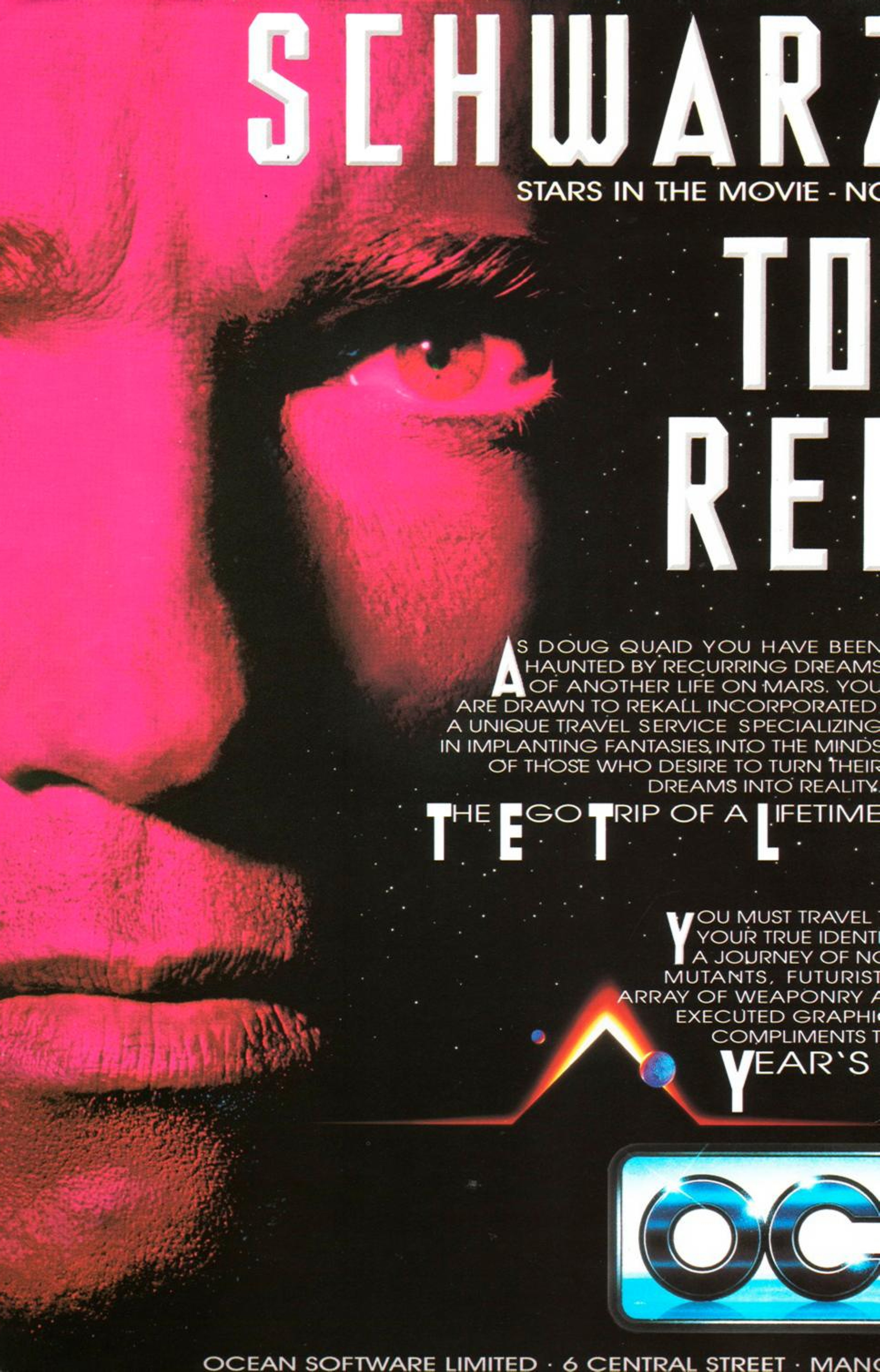
- **ON THE GRAPEVINE** – read the latest games gossip
- **PROGRAMMING IN 3D** – adding that extra dimension to your routines
- **STORM WARNING!** – a brand new games label is launched
- **GREMLIN'S GRAPHICS** – exclusive interview
- **ALL THIS, AND SO MUCH MORE, INSIDE...**

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Baffled by the basics...?
Puzzled by programming...

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New beginners' sectio
starts this month

Snow Strike ★ Kick Off II ★ Sim City ★ Sherman M



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OU STAR IN THE GAME...
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EXPERIENCE THE HORROR AS YOUR DREAMS TURN INTO HIDEOUS NIGHTMARES.
SUDDENLY YOU'RE EVERY MOVE IS MONITORED BY WOULD-BE ASSASINS, YOU DISCOVER THE SURREAL TRUTH -
YOU'RE NOT YOU -
YOU'RE ME
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OUR MISSION IS NOW
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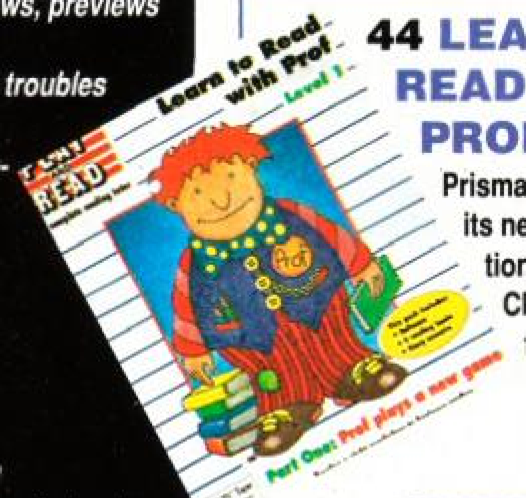
AMSTRAD ACTION
DECEMBER 1990

Line up

Regulars

Action Test

Serious

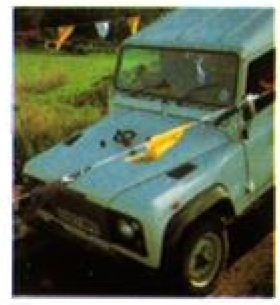


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Prisma Software launches its new interactive educational packages on the CPC. Books, audio tapes and computer games combined!

82 STORM WARNING!

James Leach attends the rough 'n' rugged launch of a new force in computer gaming.



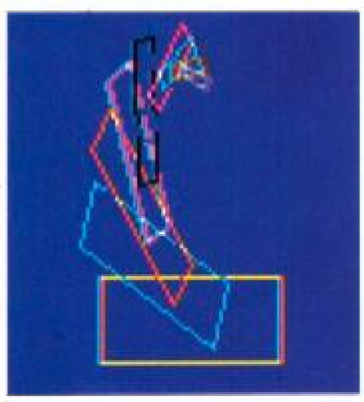
50 ALL GRAPHICS AND NO GAMEPLAY?

Psygnosis' Shadow of the Beast set new standards in graphics on the Amiga – is it an impossible act to follow on the CPC?



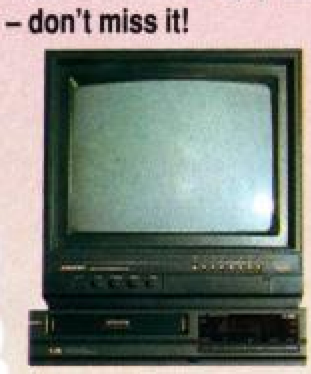
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Conrad Bessant explores the maths and theory behind 3D computer graphics in a new tutorial series.



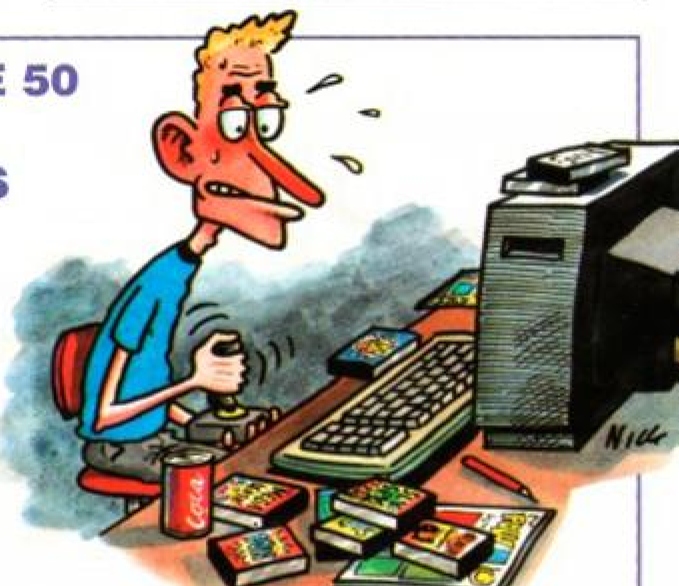
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Plus ten runners-up prizes – don't miss it!



16 THE 50 BEST GAMES OF 1990

Part I of the two-part *AA* end-of-year retrospective. Did they all stand the test of



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Sorry and all that, but we're so busy putting your favourite Amstrad mag together that we don't have time to take all those readers' calls about cheats, listings, best buys and so on. That doesn't mean we can't help you out, though – course not! Just send a letter to *Cheat Mode, Forum, Reaction, Ask Alex* etc and we'll do our darndest to sort you out!


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Spectrum
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Take the challenge! The evil Death Adder has kidnapped the King and his daughter, and is lurking in his lair with the precious Golden Axe. Only you can rescue the rulers of the Land of Yuria and set their people free.
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Gremlin's graphics

Gremlin's *Shadow of the Beast* and other forthcoming products – including the amazing *Switchblade* – impressed us so much, we wanted to know more. ROD LAWTON spoke to Gremlin's technical chief James North-Hearn about the company's approach to Amstrad graphics and the new console...

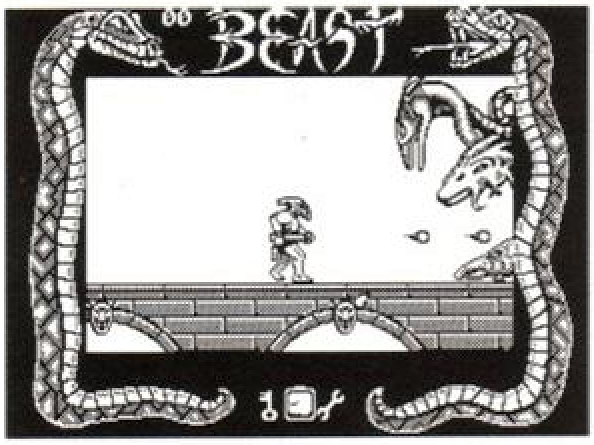
All Gremlin games at the moment seem to be using the 4-colour mode. Is that a general decision you've made just to get better resolution?
It's down to what suits the game, to be honest. Most people tend to the opinion that if you use the 16-colour mode you can do a much better job than with four colours. We don't believe that. We think it's horses for courses. We're working on a couple of products now, one of which will be in 16-colour mode, because the graphic style and the game style suits a lot of colours but fat pixels, if you like. The 'ruggedness' of the resolution isn't a problem. A lot of companies in the past have done conversions of Spectrum games to 4-colour mode because the resolution's the same – but monochrome. But we don't do that. We use four colours. If you look at *Shadow of the Beast* – the artwork in that is bloody superb, *I* think. Now that isn't done in two colours. That's not flat artwork, that's 4-colour artwork. The Spectrum version is very good – excellent – but the Amstrad one is better.

"We can work faster on the screen in 4-colour mode. But one of the other advantages of using 4-colour mode is the fact that you can store a lot more graphics... compressed graphics."

Is it easier to program faster-running games in 4-colour mode – *Lotus Esprit*, for example?
It depends on how you organise your graphics. We can work faster on the screen in 4-colour mode. But one of the other advantages of using 4-colour mode is the fact that you can store a lot more graphics. And also, because most games now are compressed to squeeze them on to tape or disk, using 4-colour, we are able to produce better-compressed graphics.

So you can produce bigger games and make them run faster?
Exactly. And also, I think, in a lot of cases, look more attractive and interesting.

How about the console – is it easier to program for than the old CPC?
It's not easier, it just offers better facilities. But we are very aware of the fact that, on the console, because it can achieve more, you have to do more. We have no intention of taking existing, standard Amstrad stuff and just porting across. I don't think that's fair to the public when it's so expensive to buy.



● *Shadow of the Beast*: "bloody superb" artwork.

Although they're *based* around the same hardware, do you have to write games for the CPC and the console from the ground up...?
I would put it this way. The difference could be as great as the difference between the Spectrum and the normal CPC. To write a console game and a normal CPC game, you could realistically be looking at writing for one and a half formats, if you like. They're not completely different – you wouldn't have to sit down and write two – but it depends on how much individuality you're going to give and how much of the resources available on the console you're going to use. The main things to consider are first of all the scrolling on the machine. By adding the hardware scrolling, it frees up an awful lot of room in the machine. Because to get smooth scrolling on the Amstrad, normally, takes a lot of space. There are several techniques for doing it. If you build them out of blocks, you could store pre-shifted blocks, or there's another alternative that's often used, that is to use pre-shifted screens – but all those things take up space, which affects the game itself. So just removing those allows you to do a lot more with the machine.

So the extra console hardware allows you to write 'bigger' games for the same amount of code, if you like?
Exactly. That's exactly it. The console's 64K should allow you to do a much better job with a product than you could on a normal machine. And that's what we aim to do. One of the biggest assets of the machine, I believe, is the fact that you can pre-determine the colours, which allows much nicer graphics. Before you were fixed.

You mean the extended palette...?
The Amstrad colour range was quite nice, but it was only 27. Now, though, you can get a much better match of colours, better fading effects etc. The ability to interrupt, as well, down the screen, the extra facilites they've added there, you can add effective colour displays that the machine itself helps you generate. That's been well thought-out.

The basic CPC has been out for six years, but the games are still improving every year. Do you think it's going to take a long time for programmers to really get to grips with the console?
I think the fact that the CPC is obviously well-established and all the major writers and publishers have a good understanding of what the CPC is able to do, is important. Basically, we're looking at a CPC with features that have been added – it's easy to say, "we could do that before; now we should be able to do this". The technology they've [Amstrad] adopted to improve the console are facilities available on other machines – namely the 16-bit machines – so the understanding of how they can be used to improve games is already there. It seems to me that what they have done is taken the basic machine and looked at what was offered on the other machines and how they could improve it. And I think they've got it right.

"The difference [between the 'old' CPC and the console] could be as great as the difference between the Spectrum and the normal CPC."

READ THE REVIEWS!
Gremlin's *Shadow of the Beast* gets reviewed on page 50 this issue. And next month, we'll be checking out the stunning *Switchblade*. Don't miss it...!

Amscene

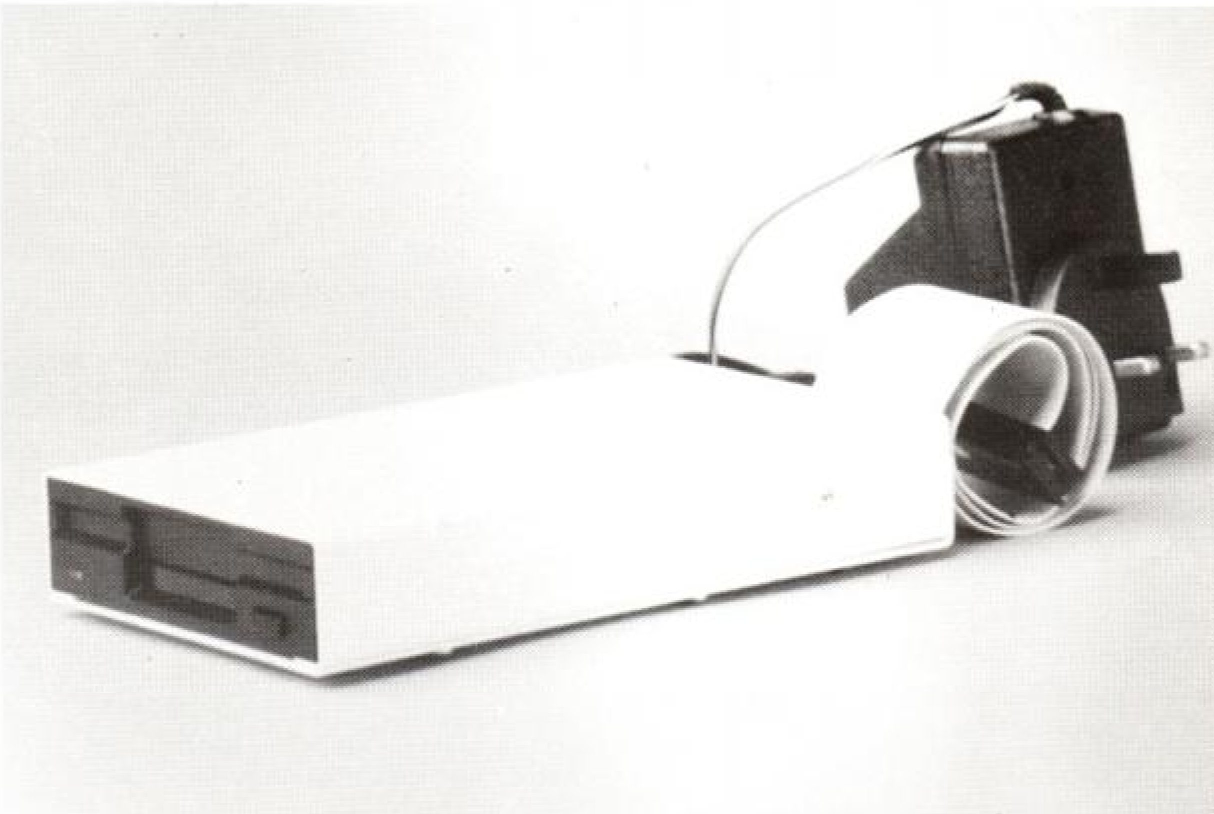
releases... updates... previews... new releases... updates... previews...

DISC DRIVE BREAKTHROUGH

The Amstrad 464 Plus can now take an external 3-inch drive! Despite fears that Amstrad's new machine would not accept an external drive, limiting its users to tape or cartridge-based software only, those boffins at WAVE and Microstyle have, between them, worked out how to do it.

All it requires is a modification to the disk drive interface supplied with Amstrad DD-1 drives, and WAVE is to offer this service to any 464 owners who have these drives and who have been put off upgrading to the Plus version.

Price and other details had not been finalised at the time of going to press, so if you want to find out more, get in touch with WAVE at **1 Bucclech St, Barrow-in-Furness, Cumbria, LA14 1SR.** Tel 0229 870000.



● 3.5-inch drives can now 'flip' disks AND work with the 464 Plus, thanks to Microstyle and WAVE.

Drive double

Larger, 3.5-inch, drives have always been a popular choice when it comes to second disk drives for the CPC. The advantage is that these drives are capable of storing much more information on a disk than a 3-inch drive. The disks are far cheaper too.

The problem is that to take advantage of the extra capacity available, you also need an extended disk operating system. Without one, the capacity is reduced to half that of a standard 3-inch disk. This is because they cannot be flipped in the same way, so only one side of the disk can be utilised.



● Green screen owners can now upgrade to colour for £99.

Microstyle is set to change all that. Its 3.5-inch drives are now being supplied with a special switch. In one mode it uses both sides of the disk, so that the 'big' formats can be used. In another, the different sides of the drives can be selected. This is the equivalent of 'flipping' the disks over, so in effect you get two disks in one.

The drives can be supplied with connectors for either the CPC range, or the 6128 Plus. They cost £79.95 plus £3 postage and packing.

Microstyle will also supply a kit giving details of how to perform the operation on your existing large-capacity drive. The kit costs £3, and comes complete with parts and instructions.

Microstyle is at **212 Dudley Hill Road, Bradford, West Yorkshire BD2 3DF**. Telephone 0274 636652.

WAVE goodbye to green screens

WAVE has also been busy on another front. Mono monitor owners who are fed up seeing their favourite games in green now have a chance put a bit of colour into their lives.

CPC monitors have never been available as seperate items. Consequently, people who bought green-screen machines but later wanted to upgrade to colour have only had the option of using a TV modulator. As well as tying up the family TV set, this also had the disadvantage of lower picture quality than available on a monitor.

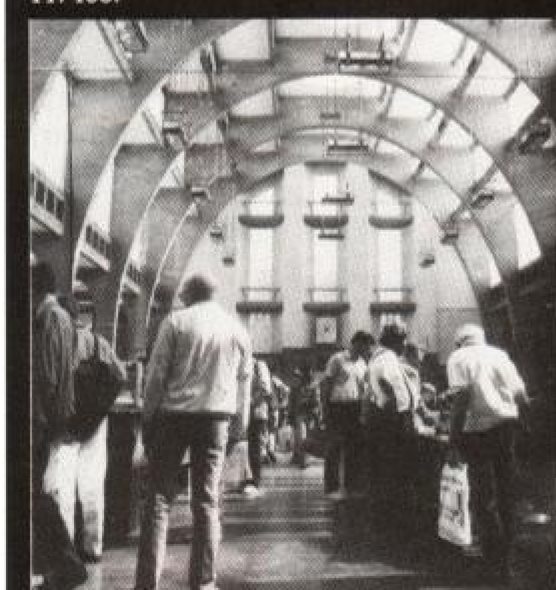
Well now WAVE has secured a number of shop-soiled and ex-demonstration models that are being sold individually. There are two types available, the CTM640 for 464 owners, and the CTM644 for the 6128.

The monitors are priced at £99 each, and you'll need to add £5.75 for postage and packaging. Stocks are low, so you'd be advised to act quickly. If you're interested, WAVE's address is printed above.

Tired old format

Yet another All Formats Computer Fair is on its way. This regularly-held show, which resurfaces every six weeks, is popular with both the public and exhibitors alike. Stands are very cheap – around £75 a day – resulting in all manner of companies renting out space.

The last All Formats Computer Fair of the year will be held on the 15th December at the New Horticulural Hall, London. For further details, contact John Riding on 0225 447453.



● The next All Formats computer fair will be on December 15th.

Perry leaves Amstrad



● Technical ace Roland Perry: leaving Amstrad to start up a consultancy.

Roland Perry, Amstrad's long-serving technical manager, has left the company to set up his own business, Perry Technology Consultants.

Roland worked for firms like ICL before joining Amstrad as Group Technical Consultant. Roland was responsible, of course, for the birth of the CPC six years ago, and even inspired a series of 'Roland' games on the machine. And one of the last projects he worked on was, again, the CPC, relaunched as the Plus range.

If you should require Roland's services then you can get hold of him at **Perry Technology Consultants, 12 Couhing Street, Waltington, Oxford, OX9 5QQ**. Tel 049 161 2713.

Orb number

Those of you rushing to order *PS Headings* from Orb software would have found that the telephone number we gave you doesn't actually ring any bells.

We missed out one teeny weeny digit. Unfortunately, that oversight was enough to render the number entirely useless. Orb's real number is 081 690 8534. Alternatively, you can write to: **Orb Systems, 125 Algernon Road, London SE13 7AP**.

Amstrad's Profits Down

Amstrad's profits dipped again for the second year running. The company's turnover fell from £626 million to £577 million, while pre-tax profits fell even more sharply from £76 million to just £44 million. This is after they stood at a rather more healthy £160 million the year before last.

Hopefully, Amstrad's decision to back the new Plus range and GX4000 console should put them back on the road to more prosperous times.

Shopper Show bonanza

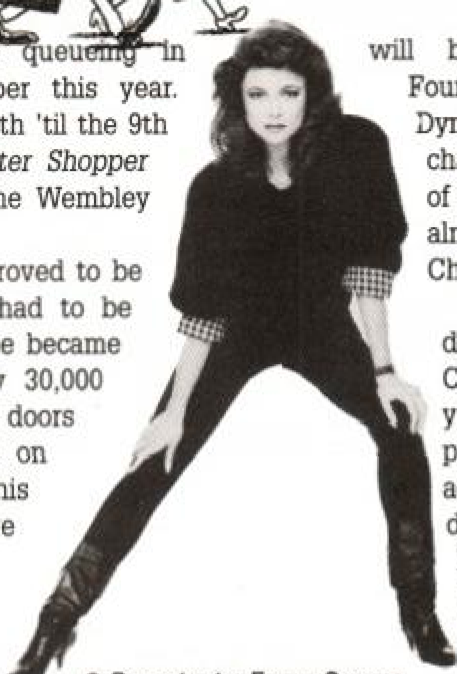


Bargain-hunters will be queueing in droves in early December this year. Why? Because from the 6th 'til the 9th of December the *Computer Shopper* show is being held at the Wembley Conference Centre.

Last year the event proved to be so popular that people had to be turned away as the venue became filled to capacity. Nearly 30,000 visitor poured through the doors of the Alexandra Palace on that occasion, while this year 40,000 people are expected to turn up. Thus the show has been extended as well as being held at a much larger venue.

The show is aimed squarely at the punter looking for pre-Christmas bargains, and the box-pushers are there in force. It's not the place to go if you're on the look-out for revolutionary new products, but you'll find hundreds of products at a knock-down price.

As well as the bargains, the show will be rasing cash for charity too. Proceeds will be going to the Starlight Foundation, the charity set up by Dynasty star Emma Samms. The charity aims to grant the wishes of terminally ill children. Last year almost £2,000 was raised for Childline.



● *Dynasty* star Emma Samms is founder of the *Shopper* Show-sponsored *Starlight* charity. *Cor...!*

And you can save even more dosh, thanks to *Amstrad Action*. Cut out the voucher below and you'll save 50p off the entry price. Family tickets, which admit two adults and two children are reduced by a further £4. Normally the cost of an adult's ticket is a fiver, a child's £3.50, and a family ticket £12.

Organiser Cape Cowley Associates is on 061 480 9811.



THE CHARTS

You'll notice a slightly new-look chart section this week, with last month's chart positions show in grey alongside. *Shadow Warriors* is still there at No. 1, we note, but what about *Back to the Future II*! Up to No. 2, despite the kicking we gave it in *AA*! It's amazing, too, to see those old stagers *Chase HQ* and *Robocop* are *still* going strong...

FULL-PRICE GAMES

(Software priced over £4.99)

1	1	Shadow Warriors	Ocean
2	13	Back to the Future II	Mirrorsoft
3	5	Chase HQ	Ocean
4	6	World Cup Soccer '90	Virgin
5	2	Turrican	Rainbow Arts
6	4	Robocop	Ocean
7	14	Bomber	Activision
8	7	Manchester United	Chrysalis
9	NE	TNT	Domark
10	20	Dragons of Flame	US Gold
11	10	Heroes	Domark
12	12	Heroes of the Lance	US Gold
13	NE	Gunship	Microprose
14	3	Batman – The Movie	Ocean
15	11	Gazza's Super Soccer	Empire
16	8	Foot. Man. World Cup	Addictive
17	NE	Fun School 2	Database
18	NE	Battle of the Bulge	CCS
19	15	World Cup '90 Comp	Empire
20	NE	Italy 1990 Winners	US Gold

BUDGET GAMES

(Software priced under £4.99)

1	1	Quattro Adventure	Codemasters
2	NE	Quattro Combat	Codemasters
3	NE	Guardian Angel	Codemasters
4	NE	Quattro Super Hits	Codemasters
5	5	Rastan	Hit Squad
6	NE	Run the Gauntlet	Hit Squad
7	4	Paperboy	Encore
8	2	A Question of Sport	Encore
9	NE	Pro Golf	Atlantis
10	NE	Wombles	Alternative

This chart is compiled by Gallup Ltd.

Reaction

What, us cause trouble! No, never in a million years...

● Bye by *Buyers Guide*

Yes, this is one of the begging letters you will have been expecting.

Please, please, please, I'm asking really nicely, continue the *Buyers Guide*. I have bought several games etc. from it and have had many happy hours though this brilliant (cringe cringe, lick of the boots) idea, which I'm sure you were behind. That's enough crawling.

I hope my letter is the 1100th letter.

Once again, please continue *Buyers Guide*.

Lucy-Dawn Mackennan
Duncaster, By Dingwall

AA: Can we really be talking about the same Buyers Guide? *It wasn't that good, surely?*

Anyway, get off the floor, Lucy-Dawn – it's no good prostrating yourself. Yours isn't the 1100th letter we've received about the demise of the BG. Actually it's the first. So it doesn't look like it's coming back. Sorry.

Mind you, we've just had a minor brainwave. What about a Games Buyers Guide? *This would be easier to update, and would probably be of more interest. Let us know what YOU think.*

● The lightpen is mightier...

It was my birthday on October the 3rd and I asked for the Electric Studio lightpen. I rang up Electric Studio and asked whether the price was still the same. But the answer was that they don't make it any more! Are you playing a joke on us, putting it in *Buyers Guide*, or didn't you know?

Laurence Hartgill
Basingstoke
Hants

AA: See! Another reason why Buyers Guide *went west. It was deliberately and maliciously presenting false information. Good riddance to it, we say. Actually, the* Buyers Guide *needed a lot of updating, and, considering it wasn't that popular, we made the fateful decision to replace it by something better.*

Oh, and by the way, belated birthday greetings.

● Bitten by bugs

One of the most frustrating things I know of is to buy a piece of software only to find the game is spoiled by an annoying bug. Something like 50 per cent of my tape games have some sort of bug in them, and for a fourteen year old like me £10 is a bit much to spend on an unplayable game. For example, on my copy of US Gold's *Italy 1990*, the picture of the TV announcer is missing, I cannot chip the ball, the fixtures and results sometimes myste-

THE MALES REACT...!



A typical female! "No sexism at all" in computer mags, deplores Catherine Dawson in *AA61*, then blatantly states that "women are the superior sex in anything they turn their hand to". I suggest there would be an outrage if the reciprocal statement came from a male! Yet this will undoubtedly go un-noticed.

I challenge her in asking how many female readers have learnt BASIC at eight, programmed adventures etc. Needless to say, BBC BASIC is not an essential requirement to mastering the computer.

Basically, it all boils down to males versus females again. Females say that they want to be equal to males in everything, if not 'more equal' Yet who is the first to get into the lifeboats of a sinking ship? Who are the first to leave invaded Middle-Eastern countries? Don't mistake me, I'm all in favour of females = males. But this 'way-out clause', and, as above, females >= males is just tiresome.

M Wray (male)

AA: Perhaps pent-up frustration causes some females to go too far when stating their equality. Instead, they end up stating their superiority. *This only enrages males who would otherwise be happy to embrace females as their equals.*

Are you, by any chance, related to Fay Wray, the ultimately exploited, helpless screaming female in King Kong?

I cannot control my anger at the absurd letter written by Catherine Dawson in *AA61*. She got her knickers in a twist over feminism and that, and talked (waffled) on about the biggest load of crap I've ever heard. A huge majority of *AA* readers are male, and all mags try to please their majority. To say that ALL women are better than ALL men in ANYTHING, especially computing is totally pathetic. I think Miss Dawson wants to wake up. If women were masters at computing then there would be more than the odd woman computer-expert/programmer. Males as a whole are better at computing than women as a whole. That's called a fact.

According to her letter, some super-woman learnt Amstrad BASIC at the age of eight, wrote an adventure game and learnt BBC BASIC at ten, and taught it all to her female friends at twelve. Well, I learnt BASIC at four, machine code at six, and was a millionaire by the age of ten. I then taught all my male friends and they're all millionaires now as well, and own half the world (I own the other half)!

Us males don't need to start groups for men in computing because this industry is hugely male-dominated, unlike women who need their own groups, one of which she is starting up.

I hope next time Miss Dawson will think about what she writes before she does so, and doesn't turn a blind eye to male superiority in most industries.

Mark Perella
Monmouth, Gwent

P.S. Thanks for a great covertape.

AA: (Hang on a minute. That is just about the most outrageous reply I have ever read. A field dominated almost entirely by boorish, bigoted males is hardly an attractive or an easy one for females to enter. That they do so at all is – to my mind – startling, and to their great credit. OK? – ed.)

Yes, well, I think this is what's called stirring up a hornets' nest...


It's all they think about

PRIZE letter

● The letter that started it all in *AA61*.

riously vanish and worst of all, whenever I win the final it says the opposition have won it!

My copy of *Turrican* (worth more than 90%, Trento!) crashes every time after level 2.2, so I can't see the next level. My copies of *Fantasy World Dizzy* and *Op Wolf* don't load, and my copy of *Myth* has a tragic error during level 2. After beating the Hydra, stripes appear all down the screen, completely ruining levels 3 and 4 as well. I hope many different software companies are reading this because I'm sure many games buyers share my complaint.

David Woodward
Abingdon, Oxfordshire

AA: Bugs are a continuing source of irritation for games players and programmers alike; players, because they can't progress very far, and the game is spoiled, and programmers, because they try to make every program work flawlessly, and spend a great amount of time trying to iron out all the little errors that occur.



US Gold is aware of the imperfections in Italy 1990, *and will replace your copy for one which has been altered. It can be contacted on 021 625 3388.*

As for the loading problems. If you use a cassette player, it's always worth periodically checking that the head and rollers are clean.

● Adventures in adventure writing

I am twelve years old and own a CPC 464. A school we have Nimbus computers, and ther is an adventure creator program called *Rescue Hazard*. I have been using it a lot recently, an I would like to know whether there is any thing similar for the Amstrad. I know o packages such *GAC*, but nothing abou them. Are they easy to use? Do you nee any knowledge of BASIC to use them? Hov much do they cost? I can't find any informatior in the *Buyers Guide*.

Melissa Gadse
Duston, Northamptor

P.S. I love the software chart.

AA: We regard ADLAN *as one of (if not THE) best adventure creator for the CPC. It was given a full review in Issue 60, on page 63. However, to summarise the salient points, it costs £29.95, is available on disk only, needs a ROM board, and is designed to be used with a word processor such as* Protext. *It can be used with BASIC, but this would appear to be the long way round, and more complicated.*

ADLAN is available from ***Graduate Software, 14 Forrester Avenue, Weston on Trent, Derbyshire, DE7 2HX****. Telephone 0332 702993.*

And thanks for the comment on the software chart. We love it too.

● PD or not PD? Disk is the question

Just a quick letter of complaint, *AA*. You maga zine is brill, fantastic, crawl grovel (*I thought you said complaint? – ed*). So I'm not complain ing about you (*oh, good – ed*), it's Public Domain software that is my gripe. Stand by, al CPC 464 owners; PD may not be available to us cassette-based users for much longer, as I have just discovered.

On page 10 of issue 61 there is a whole page advert for Wacci UK Public Domain. Their little logo (a cross between a rabbit and a dog is clearly holding a CPC 464, but do they do cassette software? Do they hell!

After contacting Wacci UK I had discovered that Robot PD were also on the verge of being disk-only, due to the time it takes to load a cassette or something. Why not have a machine capable of copying a few at once? The technology is surely there. The expense, I'm sure could be solved. Otherwise it means that PD isn't really PD but DD (disk domain) only.

I also feel that the CPC 464 is branded wrongly. A games machine? A very versatile machine, more like!

It's time people stopped knocking it and started to support it instead.

Long live the CPC 464!

Jon Pogson
Brighouse, W Yorkshire

P.S. Perhaps Wacci UK should change their logo. The little creature should be holding a couple of disks, and not a CPC 464. Then cassette users aren't wasting time and money (yes, I was nearly caught out) applying to Wacci or any other PD library who only do disks. Their adverts should be clearer. Also the

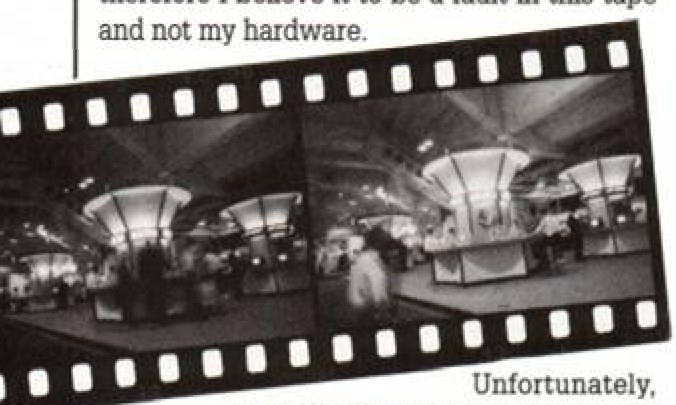
● It's showtime... or is it?

I recently attended the Computer Show at Earl's Court, on September 15th. I have previously only attended the Amstrad shows, and now I realise why.

The show was advertised to open at 10am - instead of which, it had opened at 9am. Consequently, when we arrived there was a gigantic queue, and we were not allowed in for two hours! Then we were charged £5 each, which was much higher than I have ever paid before, and I though it was a rip-off.

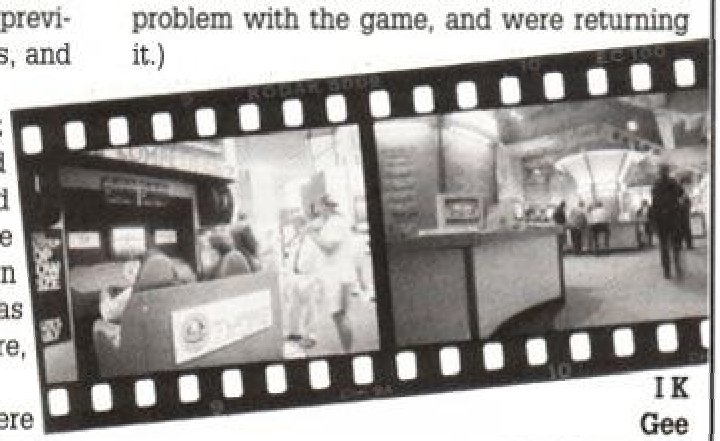
Hardly any of the exhibitors were catering for 8-bit machines, and I found the whole experience a costly waste of time and money. What's happened to the Amstrad shows? I shall never go to another of these combined ones. Which brings me to my plea for help. I did manage to find one or two exhibitors selling software for the 464, and amongst my purchases was a copy of Activision's *Hot Rod*.

Once it has loaded, the screen display starts rolling, like a TV with bad vertical hold. None of my other software causes this, therefore I believe it to be a fault in this tape and not my hardware.



Unfortunately, I didn't get the trading name of the exhibitor from whom I bought the game, as the show was so crowded, all I wanted to do was get out. The receipt did not bear any name either, so I sent the game back to Activision, explaining the problem and hoping that they could help, as the game with this problem is totally unplayable.

(Their reply stated that they could find no problem with the game, and were returning it.)



I K
Gee
Littlehampton
West Sussex

AA: Computer shows have become to many an integral part of the hobby. There is always a good turnout for these events, which lends an air of activity and excitement to the proceedings.

However, if you look at the multi-format events dispassionately, you might come to the conclusion that there is sometimes very little for the 8-bit market.

Everyone seems to be concentrating on the money-loaded, indiscriminate 16-bit owners.

If you are anything like us at shows, you'll probably develop a headache, get really hungry and/or thirsty, lose something valuable and end up buying something you don't want, just because you want to make the day out worthwhile. Oh, and your feet will be aching by the end of the day, too.

On the other hand, if you don't go to a show, you'll find out afterwards how brilliant it was and how many new Amstrad-compatible products were being given away. So it's best to go to all the shows you can. The suffering is generally worth it.

As regards your problem; have you tried fiddling with the vertical hold when Hot Rod *is loading or running?*

SERIOUSNESS ABOUNDS

I am a retired engineer who took to computing as an interesting hobby, and am in my late sixties. I am not interested in games except perhaps the Patience type of card games. I am interested in graphics, utilities, sound, music programs etc. I have an expanded 464 with ROM box.

Like many others I find it frustrating to type out listings and then find they do not work due to printing errors which are rectified in one or two months time. It seems that you are getting better and better, and the latest idea of placing a dot to indicate spacings has helped us older people whose eyes are not as good as they used to be.

Whilst on this subject, the latest fad for multi-coloured paper and writing is diabolical, and for me, possible to read. For example "So who needs a PC?" in issue 61. I cannot read this even with a magnifying glass, and tilting the article about. If your Art Editor feels he has to do this, and in my opinion it is unnecessary expensive rubbish, please use contrasting colours like white with dark colours. Blacks, reds, dark blues etc. not grey, stone.

I hope these mild moans will encourage you all to improve your magazine and cater for the vast public, some of whom are not interested in games and games reviews.

H R Nightingale
Huntingdon, Cambs

AA: Type-Ins, obviously, has to be totally accurate. Otherwise the programs fail to work. Occasionally, bugs are inherent within the programs, and only come to light once readers have extensively tested the program in ways which we are unable to do, owing to the time restrictions imposed by the deadlines we work to.

There is also the possibility that correct data can become unreadable when printed in the magazine. This also stops the program from running properly.

We try to avoid any errors in the magazine as a whole, but take special care with Type-Ins. Any mistakes that do come to light are always rectified as soon as possible. More than this we feel we cannot do.

As to the readership of the magazine, our polls indicate that the majority of our readers are very interested in games, and judging by the responses we've had concerning the new GX4000 console, many are SOLELY interested in games. We try to cater for everyone's tastes, but also try to keep the proportions about right.

And regarding the colours. There have been some appalling choices; quite unreadable on occasion. We only do it when we realise that what we've written is rubbish, and as we can't be bothered to re-write it, we want to hide it from public view. But we'll try and do better in future.

I am seriously disappointed with the way in which *Amstrad Action* is evolving. There seems to be fewer and fewer articles on serious applications such as the excellent Comms article in the March 1990 issue. The extended games section no longer describes a game's suitability on a green screen, and the once excellent PD section has become an "AA guide to copyright law" without a single reasonable review since that woman took over.

To add to all this we are now about to lose the *Buyers Guide.* Maybe it's time to rename the magazine *Amstrad Games*? Maybe it's time for me to look elsewhere for quality information?

I hope I'm not the only one to write to you about these matters and that you will seriously review your editorial policy.

P G Gardiner
Welwyn Garden City, Hertfordshire

AA: Every issue contains at least one serious review – is people write the stuff, we'll report on it. Maybe it's the software publishers you should be complaining to! We will still cover applications such as Comms, but must reflect the changing face of Amstrad computing. This means representing the inevitable shift towards games caused by the Plus range and the cartridge systems.

The popularity of green screens – especially amongst games players – is diminishing fairly rapidly, and we have changed our policy, so that we will mention in the body-text of the review whether a game is not playable on these monitors.

The PD section certainly covers serious software as well as games and demos. Ms Lamb has certainly covered the copyright laws, but doesn't do so every month. She is as interested in serious software as the next person.

Joking aside, there was a considerable amount of mail in favour of abolishing the Buyers Guide. People apparently felt that the pages could be better utilised. And, coincidentally, so did we.



● Grrr... *Amstrad Action* is just not serious enough...

PD column should look into this problem and let us 464 users see what is happening and what is planned.

AA: Wacci UK informed us indignantly that its rather fetching logo is a cute dog, not a rabbit, vole or rhinocerous. It is holding a CPC 464 because when it was originally drawn (on an Amstrad), the 6128 or 664 wasn't around. It is kept for reasons of tradition rather than technical accuracy.

Cassette-based PD is available, but takes so long to process that it is only smaller companies with lower turnovers that specialise in it. LOADing and SAVEing problems, and differing azimuth alignments make for all sorts of errors. Tapes are forever being sent back and forth to be replaced. People also tend to send C90s and C120s, hoping to have them filled with PD. This is plainly ridiculous.

Basically, the future of PD lies mainly with disks.

As well as informing Wacci, we have also spoken to Caroline Lamb, and she will bear your comments on tape-based PD in mind for future Free For All *columns.*

● Out of his tree

Please can you help? The Amstrad Users Group can't! My father and myself are putting together a family tree. But the amount of paper, with Aunts, Cousins, Great-Grandparents would fill a tea-chest!

So I thought of my 464 Plus. There must be a program somewhere that would help. Do you know of one?

The only one the Amstrad User Group could suggest will only work on a PCW, not on a CPC. And I'm not changing my 464 Plus just for the family tree. Please do you know of a program I can utilise on my 464 Plus? It could be a tape or disk. Please please, pretty please (*that's enough grovelling – ed*). Also, do you know when the new cartridge games will be available for the new 464 Plus?

D Ramsbottom
Hull, Humberside

AA: Firstly, we are confused as to what computer you actually possess. If you have, as you



● Is your covertape missing? Have it out with your newsagent (oooer...)

state, a 464 Plus, you must have got it very quickly. And how do you load disks into it? We didn't think that anyone had made up a lead capable of doing that yet.

Cartridges are becoming available now, with such games as Fire And Forget II *and* Switchblade *being first onto the shelves.*

Anyway, we aren't currently aware of any CPC family tree generators, but some enterprising soul must have written one. If that person is you, please get in contact with us, and we'll let everyone know.

● I'm really angry, me

I'm really angry. Either our milkman/newsagent, that is Mr Gooch, nicked my cover tape (which I doubt) from issue 61, or your distributor nicked it.

What should I do? Our milkman/newsagent rang your distributors but nothing seems to have come of this. As this is the only time I get new software, I feel cheated.

Simon Clarke
Linton, Ross-on-Wye

P.S. I have now subscribed.

AA: That Mr Gooch is amazing. Not only do he deliver fast bouncers to the West India batsmen, but he delivers milk and papers Simon Clarke as well.

We suggest that if you receive an A which doesn't have a cover-tape (and is su posed to have one), you should ask yo newsagent for a replacement, as occasional they do come adrift. In your case, Simon, would have been difficult, because yo newsagent appears to be captaining Englan in the first leg of an Australian tour.

Subscribing is a fine solution. Well done.

● Patient is rewarded



● *AA* likes to make people happy.

By the time this letter is published I will be reading it from my hospital bed. My wife has strict instructions to bring my *AA* to hospital to cheer me up. I have been buying your mag for two and a half years. My CPC 6128 plus your magazine has kept me sane since I finished work through ill health. Hence the hospital for an operation – which cannot part me from my *AA*.

Your magazine has served me well in the past with your great tips, pokes and reviews. My only complaint is I have written three times to *Helpline*, for anyone who has a copy of *Blue War*. None has been printed.

I purchased your *Cheat Mode II* book and tapes. Great, but the poke for *Hunt For Red October*, by my favourite hacker, Mike Wong, does not work. Error in Line 20 occurs.

Please print this letter to cheer me up in hospital.

Mr M. Marsh
25 Shakespeare St
Kilton
Worksop
Notts S81 0QG

AA: If anyone can offer any help with Blue War, *drop Mr Marsh a line. Is the* Red October *poke for tape or disk only? Have you checked your typing? (Yes, we're sure you have.)*

● Mad as a small houseboat

To keep small children amused during the ho days, simply use a chisel to prise out all t keys from the front of your CPC, mix them in bag, and hand out seven to each child. Th must make a word out the letters they ha been given. The child who makes the longe word wins.

Unfortunately, once you have done th your CPC will never work again, but t infants will have many minutes of fun playi the 'letters' game (as I call it).

GX4000 owners note: you won't be able play this game.

Mr J Ledbu
Glamorgan, Wal

AA: That's quite enough of that, thanks. (M Ledbury is winner of the 'Maddest CPC owne of the Year' competition. He wins a ton nitrogen).

● *Iron Man* gets metal fatigue

The game you gave free with your October magazine is not the best, because;

1. If you go forwards, you go backwards.
2. The brown car gets the points and nitros.
3. You always get last place.
4. You don't know which is your car's front.

Please can you tell me if I am doing an thing wrong?

Raj Loga
Sutton Coldfield, W Midlan

AA: Actually, you might be driving in revers Try going the other way. Use the accelerat button to move forwards, and left and right steer to the left and right. And, if you're st no good, practice.

● Fantasy Island

First of all, I have a favour to ask you. I am attempting to set up a fanzine dedicated to new writers of science fiction/fantasy. It will be set up along the lines of a writers' workshop. Each issue will contain, depending on the length, one or two short stories or a novella. The following issue will then contain letters of praise and constructive criticism on those stories as well as new ones. There is more, but this is the basic premise.

The favour is this: that you print this letter and my address in full so that people interested can write to me (enclosing an SAE) for an information pack. You may be asking what this has to do with *AA*, a computer magazine? Well, it's simple: the whole thing will be put together using *Pyraword* and *Stop Press* on a 6128. Neat tie-in, eh? If you could do this, I would be eternally grateful.

Secondly, as I say above, I am using *Pyraword* to do most of the donkey-work. I really need to upgrade to something a bit beefier. I have seen the advert in *AA* for *Brunword 6128*, specifically the package 9-Pin Elite. The list of comparison timings is very impressive, especially when I have heard such good things about *Protext*. What do you think? Given the choice, which one would you choose?

I hope you can help me on both these matters.

Simon Warford
134 Draper House
Hampton St
London
SE1 6SY

AA: A fantasy/science fiction magazine eh? We're only too pleased to help, Simon. Keep in touch, and let us know how it goes. In fact why not send us a copy?

As for your WP/desktop publishing needs; James and Adam write all their copy using Protext. *Need we say more?* Brunword *is highly competent, however, and cheaper.*

● Vorsprung durch German

Remember the letter in *AA61* from Sim Warford entitled 'No man's land'? Well I a German and whatever anybody would like have translated, either to or from German, si ply send it to me and I'll be happy to do so. F this reason, oh mighty mag, I would like you print my name and address.

Karsten Viet
6 Bruce I
Souths
Portsmou
Hants PO4 9

AA: Ausgezeichnet! Danke schön, Karsten (t in other words).


NARC
NO-ONE HAD THE GUTS UNTIL NOW
NARC The arcade action thriller with the BIG finish.
Infiltrate the criminal underworld - your mission is to seek out and destroy the king pin of the MR BIG CORPORATION -
IF YOU GET THAT FAR.
You'll have to outwit his enormous army of body guards... gangs of charisma-bypass patients in trench coats, the bullet brain with the build of a rhinoceros and the breath of a dung beetle, packs of vicious canine yappies, the psychotic clown with an evil sense of humour -
YOU'LL DIE, BUT NOT LAUGHING!
Then there's the gas guzzling cadillac jock - a cool specimen, elbow hanging on the door rail, a serious looking piece in his hand and ready to blow you away as he rolls down main street leaving you coughing lead.
It's not all bad!... You've got a chopper to back you up, a mean, shiny street machine, some heavy metal hardware and some pretty neat moves. And what about the king pin... did I say he was Mr. Big?...
No, he's
MR. BIG!
AMSTRAD · COMMODORE · SPECTRUM
CBM AMIGA · ATARI ST
ocean
WAKELIN
OCEAN SOFTWARE LIMITED
6 CENTRAL STREET · MANCHESTER · M2 5NS
TM & © WILLIAMS ELECTR

On the Grapevine...

News, views, previews, scandal, gossip... the place where we bring you up to date on who's who and what's what in the big, wide world of computer entertainment...



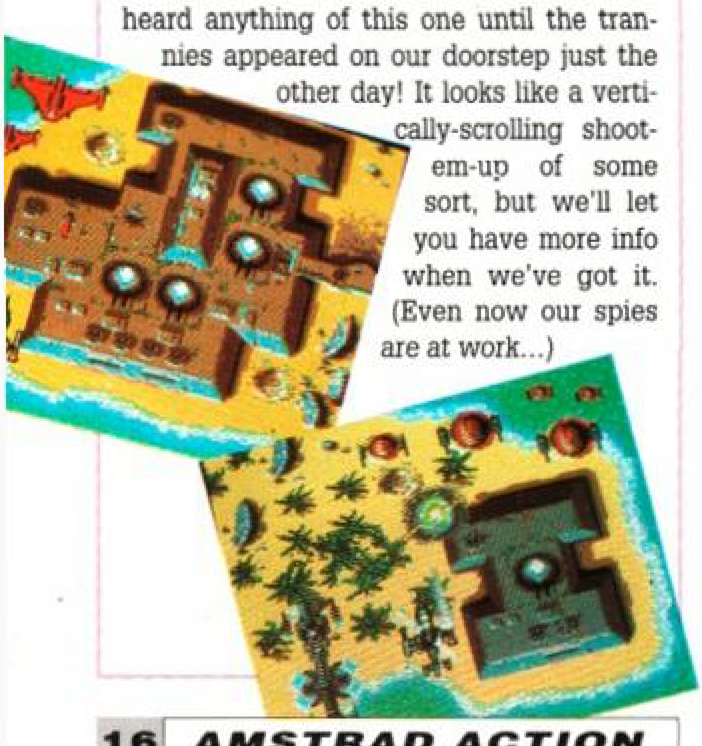
French software house Loriciel has gone absolutely barmy. We had a huge package delivered to us the other day containing about two dozen transparencies and a mammoth press pack it took us the rest of the day to read. The thing is, we know that some of these aren't Amstrad screenshots, but we can't be too sure, see? Anyway, they should give you an idea what the games will look like. We don't have firm release dates yet, but Loriciel promises in its blurb that they're definitely on their way. There's nowhere near enough room here to describe them all in detail, so here's a quick flick through...

CONSOLE NEWS

The following two Loriciels screen shots were not only taken from the Amstrad but that they are of a forthcoming console game! (Shock, horror)

COPTER 271

This is exciting – we'd neither seen nor heard anything of this one until the trannies appeared on our doorstep just the other day! It looks like a vertically-scrolling shoot-em-up of some sort, but we'll let you have more info when we've got it. (Even now our spies are at work...)



Panza Kick Boxing

None of us know what Panza kick-boxing is, but we're prepared to hazard a guess that it's some kind of martial art. One or two players can take part and you can select from eight combatants. With 56 attack positions, it sounds like there's enough waggling to keep the most demented psycho happy.



● *Panza Kick Boxing* – time to put the boot in?

Advanced Destroyer Simulator

Tempting to believe, yes, but it's not a Codemasters licence! It is in fact a filled-3D World War II destroyer-sailing simulator which promises 15 different missions as well as detailed maps, damage reports, torpedoes, confidential captain's diary (?), map-zooming and – oh joy! – binoculars.



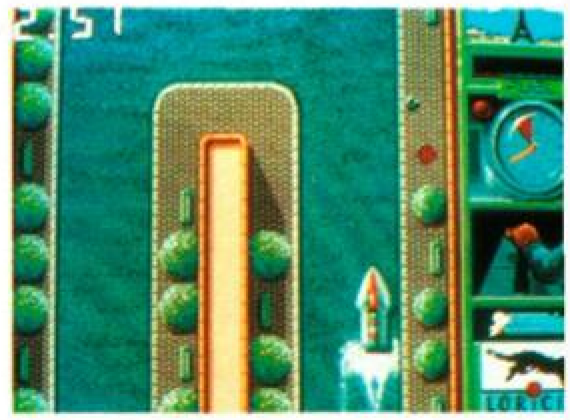
● *Advanced Destroyer Simulator* – no, it's not by the Coders...!



● *Quadrel* is one for the brain-boxes! (Boo! Hiss!)

Quadrel

This colourful puzzle game reckons to tax your strategy and intellect. You have to place tiles of different colours on a draughtboard-type playing area in such a way that your opponen can't put one of their own tiles in such a w that no square close to the edge of the boa should be of the same colour... well, we're su it'll make sense when we see the rules.



● Outboard puts you in charge of an F1 powerboat Brill!

Outboard

This is a water-borne vertical-scroller that h you racing your powerboat over a whole se son. You also get to buy fuel, upgrade yo motor and get in some training. Now, peerin closely at that screen shot, we reckon... yes we reckon that might even be from the co sole. We're not sure, mind you.

GOING GREEN

"Just like the real thing, only better," claims this press release from Electronic Zoo. Well this one had to be good didn't it? Thing is, it's describing *Magic Garden*, the company's new horticultural simulator. (Why, what did you *think* it was?) As far as we can tell, it's basically like *Sim City* only on a slightly less ambitious scale. Your job is to turn your garden into a miniature paradise with the help of your garden gnome Grobble (well listen, it *could* happen...) while battling against the destructive attentions of other, less friendly, gnomes. It should be appearing on the Amstrad early next year, just in time for spring planting.



● Would you buy a hardy perennial from these people?



GAZZA!

Adam's been having a sneak preview of the new footie game from Empire. Gazza is a console (fab!!) game licensed around that lovable rogue Paul Gasbag, hero of all the World Cup videos in Smiths and probably next Prime Minister (unless Kinnock's game picks up). Gazza's console exploits were on a video delivered to our offices which Adam's been studying carefully in our darkroom for several days (along with some others he brought in in a brown paper bag – funny that). And the verdict? "Looks good!" says Adam on the internal phone. "Very good, as a matter of fact."

The Magician

Very strange. It just so happens that one night you turn into a magician. What's more, you're trapped in an apparently never-ending library with a load of belligerent toads and nasty traps. It's a horizontal scroller with just the one (huge) level.



● The Magician should be here in a spell. (Ho ho.)

Superskweek

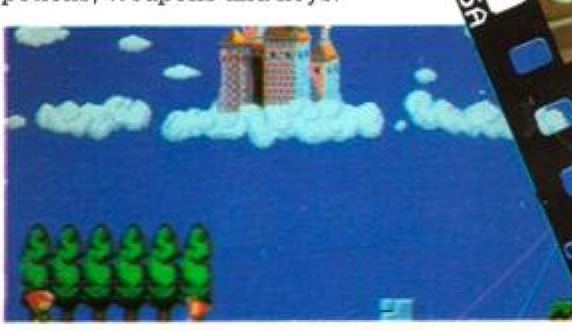
The follow-up to that humorous puzzler we reviewed over a year ago. Again, Skweek has got to paint his planet pink instead of blue, but this time there are some added twists, such as a two-player option levels with two floors and a shop you can buy some extra goodies to help you on your way.



● *Superskweek* looks as cu... as the original.

Builderland

In this arcade adventure yo... control an incredibly cutesy character wandering around a world filled with warriors, flame monsters, cave monsters and the like. There's the usual crop o... potions, weapons and keys.



● *Builderland* puts you up against the usual fairytale monsters.

Disc

Another puzzle game. This time there's a sporty angle, as you run along a tiled pavement lobbing a disk at the tiles on your opponent's side. He, not surprisingly, is doing the same as you.



● *Disc* – flan-flinging fun for two players.

BEST FOOT FORWARD

After its fanfare launch of *Robin Smith's International Cricket*, Challenge has now come up with another licence, this time centring on the UK's favourite sport. No, football.

Trevor Brooking's World Cup Glory will be a "detailed and realistic" management sim – no, c'mon, read the rest – with the emphasis on strategy, tactics and gameplay. It's rather a long time after the World Cup, of course, but that shouldn't be a problem for dedicated footie fans.

GUNBOAT DIPLOMACY

Accolade's new combat game *Gunboat* should be steaming onto the Amstrad soon now, and to celebrate the event Accolade is giving away a headband and hip-flask to some 20 lucky readers.

But what do you have to do to win? Ah, well, now you're asking. Basically, we're giving away these ultimate personal accoutrements to the senders of the first 20 postcards pulled out of the (rather large) *Amstrad Action* hat. Address all your entries to: **GUNBOAT COMPO, AMSTRAD ACTION, BEAUFORD COURT, 30 MONMOUTH STREET, BATH, AVON BA1 2BW**. Warning: closing date is 20th December and as usual multiple entries go in the bin. Also, five of the twenty prizes will go to the senders of the most unusual, wittiest, odd etc postcards sent in. Get cracking!

CODERS CHART BONANZA

Codemasters has been digging into the statistics again, and has come up with some remarkable figures:

- The Coders are selling more games than any other publisher
- Over 25 per cent of budget games are from Codemasters
- Budget software outsells full-price by 5:2
- No fewer than 17 bus services stop outside the Coders' HQ (we're not sure about that one)

GAMES GO UP

Well, it looks like it, anyway. There have been plenty of rumours of budget price rises, for a start. Apparently there's been a great deal of pressure in the industry to up the standard budget price from £2.99 to £3.99. Nothing's come of that yet, but in the meantime full-price games are definitely creeping up. Damn and blast.

SNEAK TURTLE PREVIEW

We've wangled an early screen shot of the eagerly-awaited Turtle licence from Mirrorsoft. We were half-expecting a Speccy port but – oh joy – what we've got here ain't no Speccy port. As a matter of fact, it looks very good indeed. More news as and when we get it.





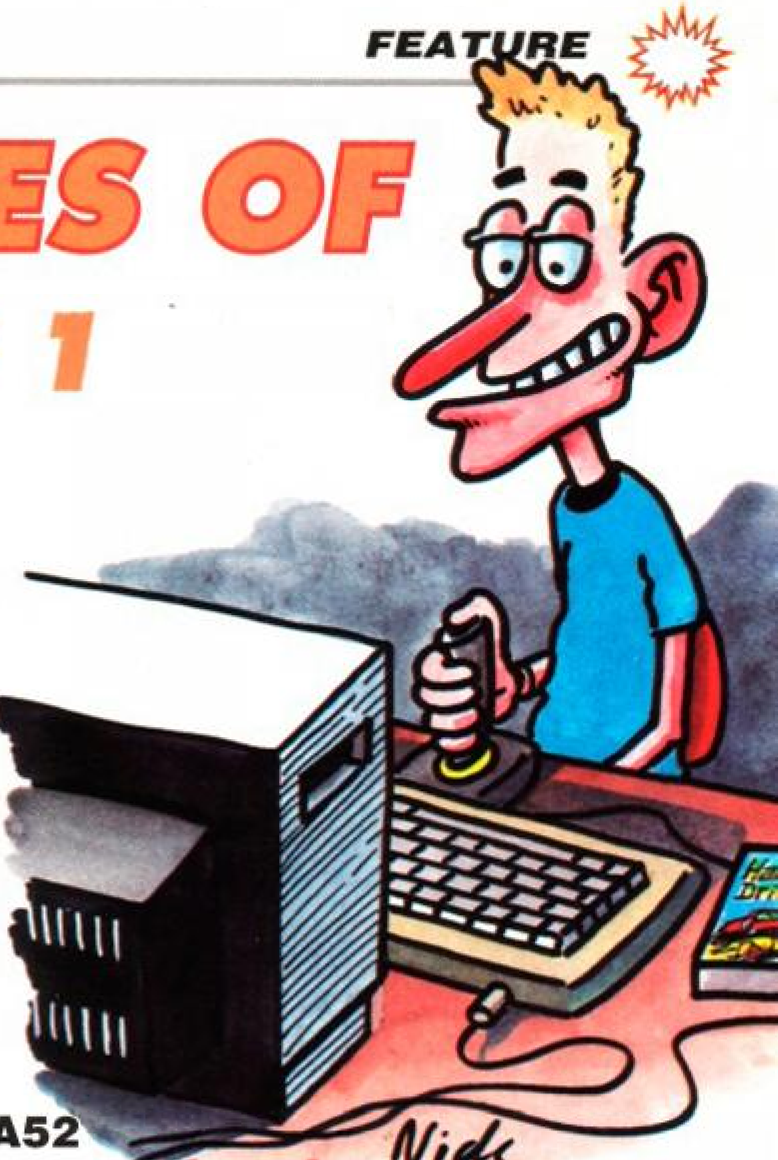


● The Turtles are coming to town! Adam meets the pizza-gobbling wassocks themselves.



4 FOOTBALL FANATICS
4 GREAT GAMES
SOCCER MANIA
COMPILATION
4 GREAT NAMES
FOOTBALL MANAGER 2
Gazza's Super Soccer
FOOTBALL MANAGER World Cup Edition
1990
MICROPROSE SOCCER
FOOTBALL MANAGER 2
An all time great from Kevin Toms,inventor of the world's greatest selling football game. Man to man marking, choice of formations and substitutions, tackling, crosses and diving goalkeepers, Football Manager 2 is full of action with spectacular graphics.
Screen shots from various formats.
GAZZA'S SUPER SOCCER
Gazza mania is about to hit your computer screen! Realistic Ball control allowing you to chip, curl or dribble through the opposition, maybe one day you'll have the skill of Gasgoine himself.
FOOTBALL MANAGER-WORLD CUP EDITION
Enter the international arena with a World Class game from Kevin Toms. This will be the chance for you to manage the national team into sporting history.
ARE THE PLAYERS CONFIDENT?
MORALE: 6
I'M OVER THE MOON MYSELF
NO COMMENT
MORALE: 7
THEY'RE A BETTER TEAM
MICROPROSE SOCCER
Football crazy, football mad, this will challenge your skills right from the kick off. With features that range from overhead kicks to an overhead view of the pitch, you'll play for much longer than extra time.
Available on:-
Spectrum 48/128K Tape £14.99
Spectrum + 3 Disk £16.99
CBM64/128 Tape £14.99
CBM64/128 Disk £16.99
Amstrad Tape £14.99
Amstrad Disk £16.99
Atari ST £24.99
Amiga £24.99
EMPIRE
MICRO PROSE
Prism Leisure Corporation Plc, Unit 1, Baird Road, Enfield, Middlesex EN1 1SJ
Addictive
LIVE THAT DREAM
Screen shots are only intended to be illustrative of the game play and not the screen graphics which vary considerably between different formats in quality and appearance and are subject to the computers specifications.

50 BEST GAMES OF THE YEAR: Part 1



1990 is nearly over, a year that's seen more quality Amstrad releases than ever before. ROD LAWTON picks out the 50 best games of the year in a two-part mega-feature. This month: January to June

Most of these releases scored Mastergames or Raves in the original reviews. Some missed a Rave only by a small margin. Others didn't really get close. Yet now we've had time to sit back and look at them all, each one in some way stuck in our minds as either an extremely original game, one that took an established game style to new heights, or a game which simply had us hooked from day one for no fathomable reason!

Some games which seemed excellent at the time were soon overtaken by other games in the same style which just blew them into the weeds. For example, in 1990 the entire state-of-the-art for football games was redefined about three times. Similarly, there were games that we didn't think were particularly great at the time that we just grew more and more impressed with as the months went by. (We do still play games after we've reviewed them, you know.) So now is our chance to present you with the Amstrad Action retrospective of 1990...

Operation Thunderbolt
Ocean
89% **AA52**

"Kill 'til your barrel melts. Strike with the speed of a cobra and hit with the force of a thunderbolt. Smash your enemy with skill, precision and superior firepower..."



● *Op Thunderbolt* was an instant hit with psychotics everywhere.



Operation Thunderbolt is the successor to Ocean's coin-op smash *Operation Wolf*. You look at the world over a gun barrel and the scenery – and enemy – scroll past you. Shoot 'em all before they shoot you! This time a friend can join in and help you out.

Polished and frantic, *Operation Thunderbolt* is really one for the diehard psychos only. Would we give it 89% today? Hmm, well, probably not. (Sorry Trenton.)

Moonwalker
US Gold
78% **AA52**

"A strange film and an even stranger licence. Looks good but makes virtually no sense at all."



● *Moonwalker* was strange, but good.

Like most film licences, *Moonwalker* consists of half a dozen sub-games, each mirroring a scene from the film. It was all quite well done, but just to wierd and wacky to hang together (like the film).

We gave it 78% back then. Would we give it that now? If we could understand it, we might be able to tell you...

After the War
Dinamic
81% **AA52**

"*War* doesn't score on subtle gameplay, but peddles pure, unbridles aggression in its place. Surprisingly, it works, action all the way keeping you riveted to your joystick. Only frustration at apparently insurmountable obstacles prevents total addiction.



● Tough gameplay, in *After*

THE *AMSTRAD ACTION* RATINGS

Amstrad Action reviews always give an overall rating as a percentage. Broadly speaking, the ratings go as follows:

Under 30%: Hardly ever happens (thankfully). Applies to a game so dire that you would have to be desperate to even want to play it, a game that has fatal gameplay flaws, absolutely rubbish graphics and a plot so dull that it's an effort even to read the packaging.

30%-40%: If it's a budget game it might just be worth buying.

40%-50%: Just about bearable, but if a game scores less than 50% it means we'd rather not play it than play it. 'Nuff said?

50%-60%: Pretty grim, but we expect somebody will like it.

60%-70%: Not too bad. Lacking in one or two departments, though.

70%-80%: A pretty good game. Not great, but entertaining, competently programmed and enough gameplay to get your teeth into.

80%-90%: An *AA* Rave, meaning it's a very good release indeed. Great graphics and gameplay, and probably only a couple of (comparatively minor) quibbles.

90%-99.99999999%: Excellent, and worthy of the *AA* Mastergame accolade. This applies to a game which has us hooked, one which we reckon sets new standards in gameplay, graphics or originality. A game we'll probably be playing in the office for months to come.

● Games which score Raves are thoroughly recommended. Read the review first to make sure it's your cup of tea, but once you're satisfied it's your sort of game, we guarantee you won't be disappointed.

● Mastergames are our ultimate award. They're the ones that redefine the standards of gaming, and are essential purchases for the software library of any serious gamester.

Dinamic's games have a reputation for looking good and being very tough. If you're not a skilled games player, basically, don't bother.

Scoring 81% back in January, *After the War* looks just as good today.

THE JARGON

Graphics: The easiest thing to judge in a game. We look for bright, bold colours, lots of detail, good scrolling and decent animation.

Playability: A bit of a tricky one, this. It's a combination of how quickly your on-screen figure reacts to joystick movements, whether missiles explode *exactly* when then hit you or whether it's a bit vauge. It's also whether control is precise, enabling you to dodge baddies by a pixel-width, or whether you move about sluggishly and get killed for no apparent reason or simply can't move out of the way in time even though you see the missile/baddie etc coming at you well in advance.

Gameplay: A general measure of how satisfying, deep, complex or generally rewarding a game is. A game which is really simple in principle can have good 'gameplay' just because it's addictive and 'playable' (getting complicated, this!). And games with lots of screens and huge playing areas can score highly on gameplay just because there's so much to do. Gameplay is a measure of how well the game is put together and how much there is to it.

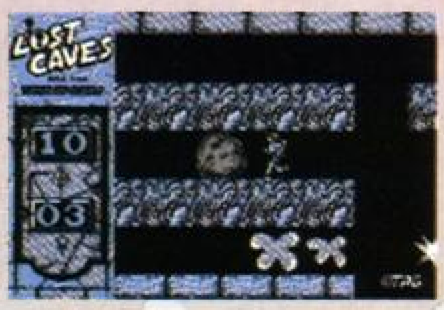
BUDGET BREAKTHROUGH

Lost Caves
Players
71%
AA52

"...tongue-in-cheek fun – cartoon explosions from huge joke bombs and a truly weird theme tune – and given pace by the falling boulders and joggers. 16 levels of controlled panic are the result..."

Lost Caves is a bit of a standing joke in the *AA* office. You see it was written by none other than Reviews Ed Adam Waring when he was a freelance programmer. It's an old formula going back all the way to *Boulderdash*, but a genuinely excellent variation on the theme.

We gave it 71%. In retrospect, that was too low. With sixteen levels, each huge and taking an age to master, it's a hell of a lot of game for a budget price.



Ghostbusters II
Activision
94% AA52

"Great gameplay and graphics are slightly spoiled by the easiness of Level One, but at last the Ghostbusters have come of age and star in a game worthy of their name."

Three key sequences from the film are turned into the three levels of this Mastergame from last Christmas.

Was it really worth '94% though? With the great licences that have come our way since, it doesn't look quite as spectacular as it did.



on's great 'Busters II licence.

Fantasy World Dizzy
Codemasters
89% AA52

"It might be only £2.99, but don't let that put you off. *Fantasy World Dizzy* is better than many full-price releases."

Fantasy World Dizzy is the third in a series of puzzle-solving platform games. The graphics are straight from the Spectrum version, but still manage to look pretty good. The best part though is the sheer humour and playability.

We gave it 89% – were we right? We certainly were.



● *Fantasy World Dizzy* – classic.

Hard Drivin'
Domark
80% AA53

"Take the chase from *The French Connection*, the stunts from a *Bond* movie and a little speed from Formula One, and what have you got?"

Hard Drivin' was an ambitious conversion of an arcade game that used true 3D to let you drive a car over either a 'speed' or 'stunt' circuit. Control was tricky, but made up for an excellent 'action replay' feature when you crashed.

The score back in February was 80%, and that was pretty fair. The game was highly impressive, but just a tiny bit too tricky.

The Untouchables
Ocean
90% AA53

"You want to know how to get Al Capone? When he pulls a knife, you pull a gun. He sends one of yours to the hospital, you send one of his to the morgue!"

The Untouchables was another film licence from Ocean, past master at the art. This time the graphics were unusual single-colour ones. Atmospheric and effective, however.

It got 90% when we first reviewed it. Now, though, it looks a little thin.



● *The Untouchables* was an instant Ocean hit.

Pro Tennis Tour
Ubi Soft
72% AA53

"A well-constructed and programmed game, it means that even the most ham-fisted and physically dyslexic can play."

That was *Pro Tennis Tour's* greatest strength – the fact that even novices could pick it up quite quickly. Still tricky enough to keep you working hard weeks later, though, and also one of the best-looking tennis sims so far.

We've seen at least two as-good-as-if-not-better tennis sims since February, but that 72% rating is still pretty fair.



● *Pro Tennis Tour* – great sporting action.

Dan Dare III
Virgin
79% AA53

"Dan Dare may no longer be the pilot of the future, and may be nearing retirement age, but he still knows how to have a good time."

This was the third in a series of *Dan Dare* games from Virgin and – as far as graphics and general polish were concerned – about the best. It featured a pretty well put together mixture of platform exploration and arcade-style shoot-outs with the Mekon, Dan Dare's perennial arch-enemies. The game itself didn't exactly break any new ground, but it was pretty well done all the same.

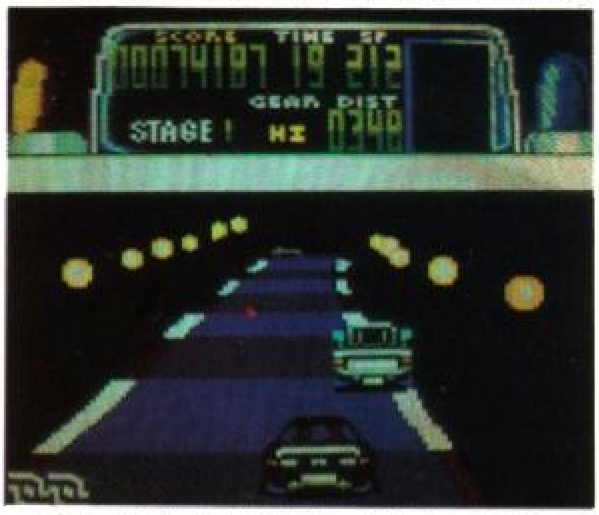
The original rating was 79%, and that's about right. It was really a game that no-one could fault but no-one would really rave over either.



Chase HQ
Ocean
90% AA54

"The life of such a game may be short, but in that time it will fulfil all your racing dreams. You'll find yourself manically pressing the Turbo button time and time again for one more hit of pure thoroughbred horsepower."

We were gobsmacked when we first saw *Chase HQ* on the CPC. Overnight it completely redifined the standards for racing game graph-



● *Chase HQ* looked better than it had any right to.

ics – and it had some pretty mean gameplay into the bargain, as you drove your police Porsche after assorted felons and then rammed them into submission.

We gave it 90% then and we'd do it again today.

P-47 Thunderbolt
Firebird
89% AA54

"*P-47* may not tell it how it really was, but after a scant few seconds playing you'll agree it's the way it should have been."

This was basically just another scrolling shoot-em-up, but set apart from the rest by its playability and breathtaking graphics. You flew a World War II fighter plane against a variety of enemies.

We were impressed enough then to give *P-47* 89%. Would we now? No, we wouldn't. A lot of better shoot-em-ups have come our way since.



● *P-47 Thunderbolt* looked spectacular.

Fiendish Freddy
Mindscape
88% AA55

"Never in the history of gaming has there been so much real humour crammed into a game, and it lifts what would be an ordinary multi-even game to rare levels."

Fiendish Freddy's Big Top O'Fun, to give it its full name, was a strange one. It was essentially one of those multi-event sports sims, but taking place in a big top instead. Tough in places, it was very funny and very original.

The score then was 88%, and we've really seen nothing like it since to compare it against.

GOLFING GREAT

Jack Nicklaus Golf
Accolade
89% AA53

"Golf is one of those rare sports that's actually easier to play on a computer than in real life."

And it's never been easier than with *Jack Nicklaus Golf*. The original golf sim – *Leaderboard* – looks quite prehistoric compared to this game, which set new standards in realism and graphical style. It was also extremely playable.

We gave it 89%, but we're beginning to think it should have been a Mastergame.



Myth
System 3
94%
AA55

"*Myth* feels full. It's detailed and challenging, a game constructed by games players for games players."

The full title was *Myth – History in the Making*. The game had you walking along battling all manner of vicious and dangerous enemies using cunning, skill and timing in a bid to rid the world of the evil forces which have taken it over.

We thought it was good enough, back in April, to give it a massive 94% and Mastergame award. Looking at it now, though, it was well constructed and very playable, but very obviously a Speccy port. The graphics alone have to pull it down a bit, possibly to the lowlier status of a Rave...



● *Myth* didn't make history but lasted well.

Kick Off
Anco
78% AA55

"The real fun comes when the opposition is human. The sheer exhilaration of playing real enemies... er, colleagues... had the entire *AA* office enthralled for hours."

Kick Off was a revelation on the 16-bit machines, and we were all expecting great things when it came out on the CPC. That same playability and ultra-fast action was there, but the graphics proved minimalist in the extreme.

Would we give it that original 78% today? No, we wouldn't. It was fast and fun, but soon after there was a near-flood of better footie games.

Rainbow Islands
Ocean
88% AA55

"A land so cute it makes My Little Pony and The Care Bears look like Detroit street gangs."

This was another platform exploration and shooting game, but had great (if sickly) graphics and was very playable. You were up against all sorts of giant cartoon monsters, which you did away with by lobbing rainbows at them!

Well, we gave it 88% then, but it just doesn't look the same now – especially since we've seen *Rick Dangerous II*.

Dr Doom's Revenge
Empire
80% AA56

"If you've ever even just flisked through a Spiderman comic then this game will get its hooks into you real quick."



● *Doctor Doom* – great, great graphics.

Playing either Captain America or Spiderman, you fight a range of comic-book heroes including Rhino, Electro and Batroc amongst others. It's really only a one-screen kick-em-up against a range of opponents, but the great graphics and characterisation make all the difference.

The gameplay looks pretty thin now, but the style and the presentation mean it's still a rave.

Castle Master
Domark/Incentive
91% AA56

"Incentive has continued to hone its very special style, creating 'total' games that require thought, luck and good joystick control to see you through."

Castle Master is another of Domark's 3D *Freescape* epics. This time you're exploring a castle filled with nothing more substantial than spirits, and collecting objects/potions as you try to rescue your incarcerated twin.

Freescape games are always competent but seldom exciting. A style that most find utterly absorbing but leaves a minority cold. Big, deep and thoughtful enough to deserve that Mastergame rating even now, though.

Puffy's Saga
Ubi Soft
85% AA56

"*Puffy's Saga* is an extremely polished maze game. The graphics and sound are superb and alone are enough to lift it above the crowd."

Another cutesy game, *Puffy* is rather in the *Gauntlet* style, with a load of orange dots to collect on each level before you can move on to the next. You can pick up food to keep you going and keys to unlock doors.

It still looks quite jolly now. A bit *too* cute, maybe, but very playable.



● *Puffy's Saga* – cute as cute could be.

Oriental Games
Firebird
78% AA56

"Graphically the game is a black belt. The sprites are large, flicker-free and nicely animated – and include a close-up of your expression as you're dealt another blow by your assailant."

You get to try four different types of martial art in this effort from Firebird: Kung Fu, Kendo, 'Freestyle' and Sumo. The backgrounds vary according to the discipline, but in each you have to beat your opponent as you attempt to take your place as the master.

You do get four different sets of opponents and fighting moves, but we still think the gameplay still lacks any real variety, for all the skill that's gone into the programming.

E-Motion
US Gold
92% AA57

"Games should challenge the wit and dexterity of the player, and you'll never face a harder challenge than level 50 of *E-Motion*. You won't have learned anything useful about quantum physics, but who cares?"



● *E-Motion* was A-mazing!

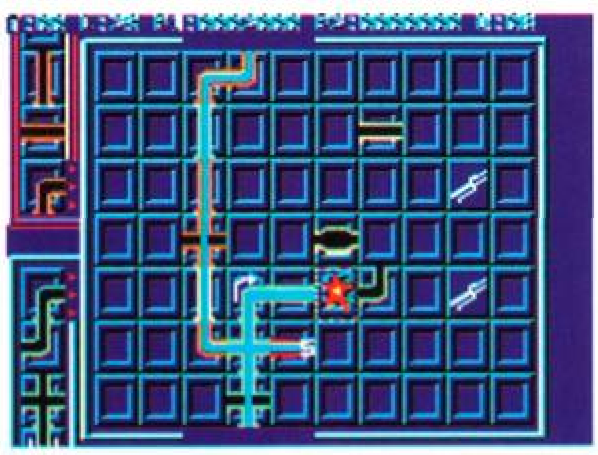
E-Motion is a weird one. It's like *Thrust* with balls. You (and another player if you like) are given the task of tugging atoms and molecules around with your litte (very little!) ship as you try to make them react and cancel each other out. Collide the wrong spheres, however, and you could start a chain reaction that leaves you with more subatomic particles than a Sellafield lobster.

E-Motion could hardly become outdated because no-one's ever likely to do the same thing again! Supremely frustrating at times, and the whole subatomic world goes into slow motion as the screen fills up, but still a great game.

Pipe Mania
Empire
88% AA57

"Given the choice, nine out of ten games players say they want to be a movie star and not put their hand down somebody's U-bend..."

Very original – you've got to assemble variously-shaped bits of pipe fast enough to keep ahead of the nasty green gunge dripping from a tap. Would we give it a Rave now? Yes we would.



● *Pipe Mania* made plumbing exciting!

World Cup Soccer – Italia '90
Virgin
81% AA57

"...enough to keep any diehard fan who's also a desktop John Barnes torn between TV and monitor this June."

That was written before the World Cup took place – and before a veritable flood of footie releases. *Italia '90* looks good and plays pretty well, swapping to a goalmouth view every time a player comes within scoring dis tance.

A lot of water (or football!) has passe under the bridge since then, and if we wer called on to recall the year's best footie sim *Italia '90* wouldn't be one of them.

BRILLIANT BLAST

X-Out
Rainbow Arts
86% AA56

"When this level of tactical planning is applied to a fast and furious firefight, then it's obvious you're in for a treat."

X-Out is a scrolling underwater shoot-em-up that scores on three major counts: graphics, toughness and depth. The graphics are truly excellent, the game is tough enough to challenge even the hardest wagglers and the 'shop' feature, whereby you can customise your own ship, adds a whole new dimension of tactics.

We gave it 86% back in *AA66*, but to be honest we've seen little to touch it since. You know what we think? We think this one's a Mastergame...



Turrican
Rainbow Arts
90% AA57

"There's a storm force win of change blowin through action games. It comes from Rainbo Arts and it's called *Turrican*."

A fiendishly difficult platform/scrollin blast, *Turrican* has more enemies and mo power-ups than any sane player could possib handle. Which is why only adrenaline-junkie and action fiends should even think about try ing this one.

If *Turrican* looked good then, it looks eve better now. Hellishly tough with great graphic and immense variety. A Mastergame? You bet

NEXT MONTH

July-December: the games that made the headlines in *Amstrad Action*. We bring together the *AA* Roll of Honour, our personal top ten games of 1990.

AND... your chance to tell us what *you* think. Send in the special coupon to elect *your* top games of 1990, the results to be printed in a subsequent issue.

Forum

DOC WARING – the man who makes techie troubles flee for their lives...

● Bizarre connection

After nearly a year of waiting for someone else with the same problem to write in, I have finally put pins to paper in the hunt for a solution to my problem. This being that everyone else who owns a 6128 seems to have open circuit board edge connectors; well it just so happens I'm the one person in the universe who has not, so please read on. If at all possible, could you tell me who supplies cables to interface between my old peripherals, such as Multiface, with open circuitboard edge connectors to my new 6128? This was bought over here in Germany and has a MITSUMI-CINCH M57 expansion socket (centronics-type female connectors), I believe. RDS Electronics or a company with a similar name was mentioned to me but I need an address from you the very, very helpful people from *Amstrad Action*. And now...

QUESTIONS:

1. Where can I get a firmware guide?
2. Where can I get a AMX mouse – without the obligatory software?

REQUESTS:

1. More on video effects.
2. A series on writing a serious program such as a bank balancer.
3. No more Emma Broadley.

PS. Don't forget, now, I really am desperate for that cable.

Steve Murphy
AESF Engine Bay
RAF Gutersloh
BFPO 4
W. GERMANY



● The new Plus machines have a proper D-connector instead of the standard edge-connector. And so do some imported German CPCs, it seems...

As far as I know, all CPCs sold in Germany have the 'D' shaped connector you speak of. All peripherals available in that country should come with the appropriate socket as standard.

However, the new Plus range of computers from Amstrad now also have the 'D' connectors, which incidentally are better quality and more reliable than the standard edge connector.

Several manufacturers are working on converters that will allow Plus users – and yourself – to use the 'normal' CPC peripherals. One such company is WAVE. Its cable costs £11.15 including p&p, and is available from WAVE, 1 Buccleuch Street, Barlow in Furness, Cumbria LA14 1SR. Telephone 0229 870000.

● Masterfile mastered

As an avid user of the excellent *Masterfile III* database, I sometimes found the need to access the total number of records stored and the number of records selected for use in a User routine.

These details are not usually available from within the program.

If you want to access these figures, then insert the following line or lines required in your User Basic routine:

For Total Number of Records Selected:

```
x=((peek(&8362)-&30)*1000)+((peek(&8363)-
&30)*100+((peek(&8364)-&30)*10)+(peek(&8365)-&30)
```

For Total Number of Records:

```
x=((peek(&8353)-30)*1000+((peek(&8354)-&8354-
&30)*100)+((peek(&8355)-&30)*10)+(peek(&8356)-&30)
```

For Number of Parents:

```
x=((peek(&8370)-30)*1000)+((peek(8371)-
&30)*100)+((peek(&8372)-&30)*10+(peek(&8373)-&30
```

In each case, the variable x will hold the number required after User Basic has been invoked (from 'U' at the main menu). Obviously it is easy enough to incorporate all three lines into your own routine – all you need to do is assign a different variable to each line.

I use the 'Number of Records Selected' to enable a graph-drawing routine to set up suitable axes for a bar chart without having to make a note of how many records the search had selected each time, and inputting this number manually.

I am sure that many other uses will spring to mind if you just give it a little thought.

Perry Hampson
Norfolk

Many thanks Perry.

● CPM solution

I own a CPC6128, on which I quite often use CP/M Plus. My main criticism is the amount of disk space taken up by the system. 9K is used on the system tracks containing the loader, and a 25K EMS file which is the system. After examining the system tracks I came up with the solution.

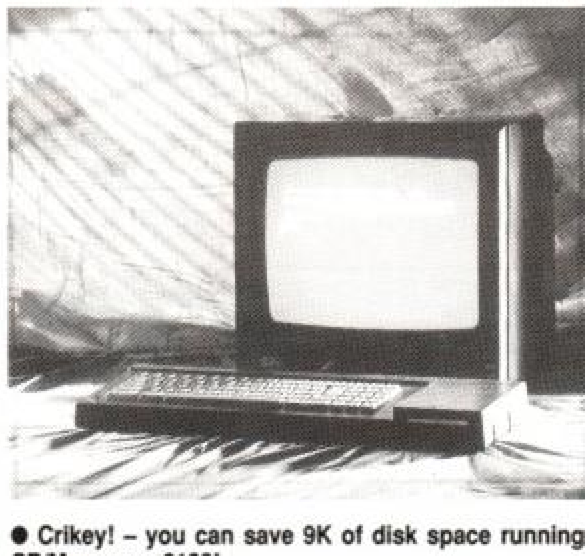
Firstly copy the .EMS file to a blank data formatted disk. Then type in and run the following program, which converts the .EMS file into a standard binary file. Now to load CP/M type RUN"DISC instead of |CPM. The CP/M programs can be copied onto the same disk, and will load as normal.

```
5 REM " CP/M Plus Conversion -
10 MEMORY 7 7FFF: FOR A=&8000 TO & 8031
20 READ B$: POKE A.VAL ("&"+B$) :NEXT
30 CALL &8000:C$"*.EMS":/ERA,@C$
40 SAVE "DISC.BIN",B,&C00,&6000,&C00
50 DATA 21,2A,80,CD,D4,BC,22,2B,80,79
60 DATA 32,2D,80,21,00,0C,0E,C5,11,00
70 DATA 00,DF,2B,80,D0,24,24,0C,3E,CA
80 DATA B9,20,F4,0E,C1,14,3E,06,BA,20
90 DATA EC,C9,04,00,00,00,00,00,00,00
```

I have found this to be extremely useful, as it saves 9K of disk space, which is in short supply on 3-inch discs.

Stefan Gatward
Brixham
Devon

Thanks matey.



● Crikey! – you can save 9K of disk space running CP/M on your 6128!

● Run the Gauntlet

Quite a while ago, various people wanted to know if, by using Romantic Robot's infamous Multiface II, they could save their position in games like *Gauntlet*, where after finishing one level, the code for each next level is loaded from disk. You said it was not possible, as after saving the game during one level the next levels would not have been saved. I have found a way to overcome this problem:

1. First play the game until you want to save it.
2. Save the game as normal with Multiface II.

When you want to continue at some later time:

1. Load the game from the disk you saved the game on.
2. Pause the game before reaching the end of the level.
3. Remove the saved game disk and insert original disk.

You should now be able to continue playing the game as normal and when you reach the end of the level it will load the next level automatically from the original game disk. I hope this is of use to other readers.

Philip de Bruin
Christchurch
New Zealand



● Want to use your Multiface to save multi-load games? Here's how...

Excellent, Philip. Sometimes the answers to problems are so obvious they get overlooked.

● Down under

I have owned my CPC6128 for nearly four years now and am very pleased with it (e.g. I have no intention of taking to it with a hammer. Yet). I have also been collecting Amstrad magazines for about two and a half years. These include our own Aussie mag *The Amstrad User* (to which I subscribe), many English mags such as *CPC Computing* (formally *Computing With The Amstrad CPC*), *Amstrad Computer User*, *C&VG* (isn't really my scene) and of course *Amstrad Action* which I believe is the best Amstrad CPC magazine printed to date (crawl, crawl).

Anyhow enough of the chit-chat and flattery and on to the serious side of my letter. Here in down-under country we don't have many large Amstrad software retailers so we don't get the wide range like those Amstrad owners in the UK. I'm not saying that we're underprivileged (just a little, maybe) here, but when new software is released we usually don't know about it (or can buy it) until months (sometimes up to eight months) after its release, and by then the software is usually out of date or has been updated. Which brings me to another point concerning your magazine. I live nearly an hour away from a newsagency and am lucky to visit once in two months, so to my disappointment I only receive every second issue of *Amstrad Action*. Also, your magazine isn't usually in the newsagent until 3-4 months after publication. For example, in December 1989 I arrive at my newsagent to buy the latest *AA* which is the September 1989 issue.

Another point I would like to make is concerning cover-cassettes. I think they're great and I would be willing to pay extra for one each month. I find the programs which they contain both very useful and entertaining. At the moment I have only one covertape, which is the January 1990 *AA* Christmas Cassette.

I nearly kissed my newsagent when I saw it. It was excellent. I want to see more like it.

If it is possible, could you give some advice on books/software that I could purchase concerning animation of graphics. I am a fairly advanced BASIC programmer and I know the basics of machine code as well. I am beginning to write my own programs and I need to be able to animate my pictures.

Andrew Mainwaring
GPO Box 18
"Carinya"
Quandialla
N.S.W 2721
Australia

Glad to hear that AA is your fave. Can't say it surprises me too much, though.

If you're fed up with waiting for your copy of AA to arrive in the newsagents, why not subscribe? I gave our subs dept a quick ring and they said that a years' worth of AAs would cost you £49.20. I realise that that may seem expensive, but all issues are posted by air mail, and you should receive them about a week after publication, rather than several months later. In addition you get a free game – see our subs pages for details, or ring Christine Stacey on 0458 74011.

We have been giving the subject of cover cassettes serious consideration. At present we mount two a year; one for our Birthday issue in October, and one for the Christmas issue in January (the one you have). The main problem with including a tape every issue is the inevitable price rise, and the fact that not everybody is happy with tapes. The Amstrad is by far the most 'professional' of the 8-bit computers. Many users have disk machines, any maybe wouldn't be too chuffed having to load everything from tape every month. The issue is complicated further by the new Plus machines. 6128 Plus owners cannot load from tape at all without modifying their machines, and obviously GX4000 owners would find a tape next to useless.

● A load of old *Cobolers*

I own an Amstrad 464. It runs on BASIC but I want to change it to run on COBOL. Can it be done? Do I need a disk drive? I've written to many firms without reply, can you inform me or put me on to someone who can?

Clive Jackson
Stamford
Lincs

I doubt very much whether you'll be able to find COBOL on tape, I'm afraid, Clive. Most implementations of languages such as these tend to be on disk.

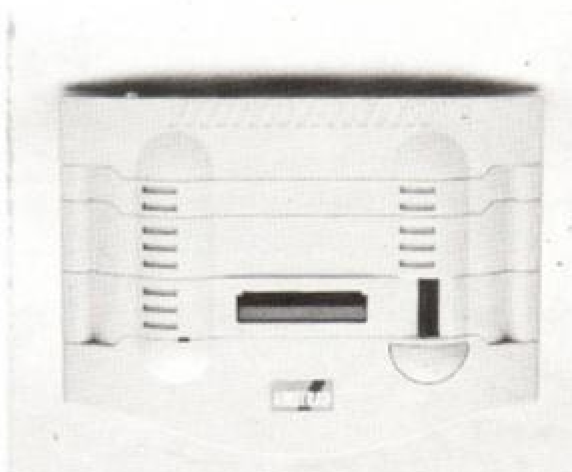
Wacci has a public domain version of COBOL. You'll find it on CPM disk 8, which costs £6.50 from ***Wacci UK, 9 South Close, Twickenham, Middlesex TW2 5JE****. Telephone 081 898 1090.*

● Console yourself

I am thinking about buying the new GX4000 console, but there are a couple of questions which I must ask:

1. Can owners of the MP3 Modulator/TV Tuner connect the GX4000 up to that?
2. If the answer to the above is "Yes" then surely I will get monitor-like quality if I am using the monitor, or will I?
3. Will there be any Cartridge games priced at around £15 as first estimated?
4. It says on page 19 (*AA60*) that there is a sound button on the GX 4000 to offer better sound with TVs. In what way does it actually improve the sound?

David Barber
Leeds



● It's true – a GX4000 will plug straight into your telly.

Anything to oblige, David...

1. *No need. The GX4000 has direct TV modulated output.*
2. *You'll get an excellent quality picture with the GX4000 connected to a monitor.*

3. Console games will average around the £25 mark.
4. It just provides a switch if the reception isn't too good.

● Vanish with varnish

I am writing to you about two things. First a tip if you have a cassette or disk and you have written on a label and want to remove the printed ink. Get some nail varnish remover and gently rub it with some cotton wool or tissue paper. Let it dry for a minute and Hey Presto! You now have a nice clean label to use again.

Secondly, I have a PAL Modulation and Power Pack (5 Volts), off my old Texas Computer. Can I use it on my CPC? I can get a black and white picture by connecting Lum to the Y connection and GND to GND, but no colour. The connections in the Modulators are R-Y, Y, A, B-Y, GND, GND. If I connect the red to R-Y and Blue to B-Y and Lum to Y and GND's together, when I first switch on the screen is blue with gold text, but then it goes a mucky reddy-brown colour. From books I have read the Y is the LUM and I think the A is the sound. I thought if I could get it to work I could use the sound through the TV as well. Can you help? Keep up the good work, the magazine is great.

B A Egerton
Stafford

Has anyone successfully connected their CPC to another machine's modulator? You'll tell me if you have, won't you?

● Pick up line

Recently you asked for one-liner programs, so here are a couple I have written.

```
10 WIDTH 255:
box$=CHR$(27)+"L"+CHR$(7)+CHR$(0)+CHR$(127)
+CHR$(65)+CHR$(65)+CHR$(65)+CHR$(65)+CHR$(65)+CHR$(12
7):dot$=CHR$(27)+"L"+CHR$(7)+CHR$(0)+CHR$(28)+CHR$(62
)+CHR$(127)+CHR$(127)+CHR$(127)+CHR$(62)+CHR$(28)
```

This allows you to print two new characters on any DMP 2160 etc. printer. To see them, run the program and type the following:

```
PRINT#8, CHR$(27);"X";CHR$(1)"Box here )))";box$;"
Dot here))) ";dot$
```

```
10 u$=CHR$(15)+CHR$(3)+STRING$(LEN(a$),
CHR$(95)+STRING$(LEN(a$),CHR$(8)+CHR$(22)+CHR$(1)+CHR
$(15)+CHR$(1)+CHR$(15)+CHR$(1)+a$+CHR$(15)+CHR$(1)+CH
R$(22)+CHR$(0):PRINTu$;:RETURN
```

This program prints underlined text on the screen, e.g.

```
MODE 1:LOCATE 1,1:a$="Underlined text ":GOSUB 10
```

Somebody wrote in recently asking why you can't use *The Insider* on Multifaced games, well I bought it recently and I can. It seems that a new version has been made (v.2.1) which allows you to do this.

Finally, does anybody know how to get to Level 3 in *Myth*? I can't find Medusa anywhere. No wonder it's called *Myth*.

David Hooper
Peverell
Plymouth
PL3 4QR

Thanks for the tips, David. As for your game troubles, it's a mythtery to me too. I've printed your details in case anyone can help you.

● Code head

I have discovered a short way of printing messages from machine code:

```
LD HL,message
RST 16 #0337
```

"message" is the address of the first cha-acter and the message ends with &00. Try th short program:

```
10 DATA
21,07,af,d7,37,03,c9,48,69,20,74,68,65,72,65,21,00
20 FOR i=&AF00 TO &AF11 : READ A$ : POKE i,VAL
("&"+a$)
30 NEXT: CALL &AF00
```

To run a BASIC program from machi code, insert these bytes:

```
&d7,&bd,&29,&c9
```

● Fade to grey

I have been thinking a long time now, and I finally decided to send a letter to you. I am a CPC-e for quite a while now (about four-and-a-half years) and a very good BASIC programmer. But don't know how to program in assembly language.

The program is actually a fade-in routine (I believe it's called like that). I'm talking about a routine that loads a screen in memory and then fades it in. Like the screen of *Karnov* or even *Mooncresta* (!!!). So I'm writing to you asking for help from all loyal *AA* readers and CPC users.

Also I want you *AA* guys to explain to me how I can send you a disk (with a proggy in it) and get it back. I don't know anything about SAEs or things like that. And because I believe that the proggy is a good one (it really is) I want to sent it to you.

And one last thing, I am thinking about those PD programs. Is there any way of getting these programs here in Greece? What do I have to do to get 'em?

Akis Xagozazis
Greece

P.S. I think that the *Type-Ins* are a very nice feature. A little more proggies per month and it would be GREAT!.

To fade in a picture to the screen is quite simple really. Instead of copying the picture from memory directly, you mask parts of it out randomly, merge it with the screen and repeat the process several times. The effect is of the image building up slowly. Something like this should do the trick:

```
        LD      HL,&4000   ;The place where the picture is stored
        LD      DE,&C000   ;Point to the screen
        LD      B,10                ;Ten passes should do it
LOOP    CALL    FADE                ;Fade in a stage of screen
        DJNZ    LOOP                ;Count down ten times
        RET

FADE LD A,R                ;R is a reasonably random source
        AND (HL)           ;Mask the data with random number
        LD      C,A                 ;Store it temporarily
        LD      A,(DE)     ;Get screen info
        OR      C                   ;Merge it with data
        LD      (DE),A     ;Put data back on screen
        INC     HL                  ;Next byte of data
        INC     DE                  ;Next byte of screen
        LD      A,D                 ;If DE has
        OR      E                   ;reached zero
        JR      NZ,FADE    ;then screen is done
        RET
```

An SAE is simply an envelope with your name and address on the front. We don't ask for you to pay the postage, but please make sure that the envelope is strong enough to withstand the rigours of the post.

I'm sure that most PD libraries would be only too pleased to supply you with their software as long as you made allowances for the extra postal charges. Get an International Reply Coupon from your post office (or whatever the equivalent is out in Greece), and enclose it with your order.

For a stripey screen and border, try this:

```
WHILE 1 : CALL &BD21 : CALL &BD24, 1,1,1: WEND
```

Type `POKE &B338,&A0` in MODE 1 and then use the DRAW command to draw some lines. They're dotty!

To centre text, include this line at the start of the program:

```
10 DEF FNc$(x$)=SPACE$(20-LEN(A$)/2)=A$
```

Then, whenever you want to print centred text, use this line:

```
PRINT FNc$("Centred Text!")
```

Did you know that its possible to redefine character 0? Use SYMBOL AFTER 0 to set the limit, then after it has been redefined, use PRINT CHR$ (1) CHR$ (0)

Shabaz Yousaf
Berkshire

Q: What's pink and wrinkled and hangs out your pyjamas first thing in the morning?
*A: Your (*that's quite enough of that – ed*)*

● Blackmail

I wrote concerning my printer (6128/DMP 200) over three months ago yet I still haven't had any help from you. Well this is your last chance before I cut off my subscription.

The printer will print the ASCII character set on self test O.K but will not accept anything dumped from the computer except complete gibberish. As an example, Brian comes out as 'FVMEN', good eh?

Please, please help, as I'm very fond of my subscriptions.

Brian Clarke
Surrey



● Printer troubles? Sometimes you just need to use a process of elimination.

Oh no! Brian Clark is going to cancel his subscription! What will we do?

The thing is, Brian, Forum receives around 100 letters a month. It would be impossible to answer every single query. I have to try and select those that will help as may different people as possible.

Anyway, I simply have no idea why your printer is behaving the way it is. As with all similar cases I would recommend you isolate the item of equipment that is at fault.

Try your printer with somebody else's computer. Try using a different lead. And try somebody else's printer with your computer. This way you should be able to discover exactly what is at fault.

● Something happened

Yesterday something happened to my CPC6128. I tried to load a game but I got a Read Fail message. At first I thought the disk had become corrupt so I tried a different game. This also failed to load, so I tried all my other disk games. None of them worked. What is wrong with my computer? Please, please help me!

Ian Kelleher
Ireland

Oh dear, oh dear. I agree that it's unlikely that all your games have broken simultaneously. I think it's much more likely that your disk drive has gone kaput. I'm afraid that it's off to the repair shop with you, my boy.

● No joy with joysticks

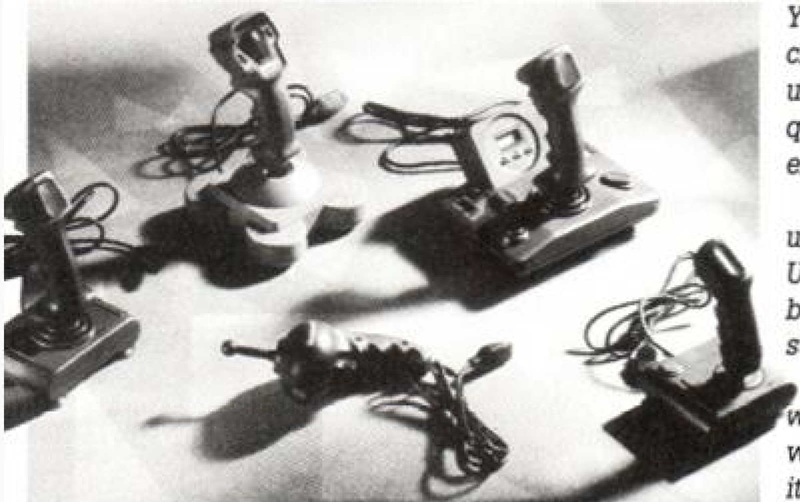
I'm not sure if I should have addressed this letter to *Forum* because I have a general query about joysticks.

I am not a dedicated games player and although I have used Amstrads for a few years I have not had a lot of experience with joysticks and have always assumed that they all have some small in-built defects because I have never been able to operate any 'stick or Fire button would always result in the desired effect on the screen.

For example, following your recommendation in the June 1990 issue, I have just purchased a new Cruiser which I use with *Tetris*. While the 'stick works fine left and right, I can never be sure the Fire button will actually rotate the shape on the screen and I may have to press Fire two or three times before rotation occurs.

As I say, I have always assumed this is something you have to live with if you have a joystick but now I wonder if that is true? I'd certainly appreciate your views on this.

Peter Smith
Bournemouth



● If you're having trouble with your joystick, check it on another computer or check another stick on yours.

You might expect some of the cheaper joysticks to be a tad unresponsive, but a 'stick of the quality of the Cruiser should give excellent results.

Maybe you're the unluckiest person in the Universe, either that or it could be that you've got a dicky joystick socket.

Try your joystick out with a friend's computer. If it works on that, then you know if it's your machine or not. If not, then take it back. Most joysticks carry a year's guarantee.

● Birthday boo boo

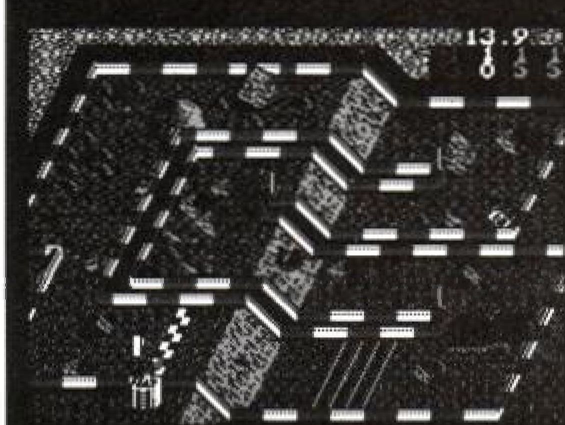
I thoroughly enjoyed the excellent covertape on the October issue of *AA*, so I decided to save IRONMAN demo to disk. I followed the nice, simple instructions and everything worked O.K. Right, I think I'll load to check it' saved. Aarggh! No loading instructions! Did you forget to put them in? Or am I thick?

Simon Moyse
London

Erm, it's goes something like this. Somehow, the BASIC loader files on the cover tape were protected. We don't know how it happened – the Master worked fine.

Anyhow, the protected files mean that the BASIC loaders cannot be transferred easily. In last month's Amscene, we printed the listings in order to get the programs to load. We also feel extremely bad about the whole fiasco, so should you want to send a blank disk and an SAE to us, we'll transfer the files onto disk for you.

The address to send them to is: ***AA Covertape fiasco, Amstrad Action, Future Publishing, Beauford Court, 30 Monmouth Street, Bath BA1 2BW.***



● Can't get *Iron Man* off your covertape and on to a disk, eh?

Ask Alex



HI!

And welcome to a regular new beginners section in *AA*. My name's Alex, and I'm here to help you out with all those little questions that you've wanted answered about the Amstrad but were too afraid to ask!

I'm not one of those propeller-heads who rant on about ROM boards and widgets all the time. I'm just a down-to-earth Amstrad user who has a basic understanding of her machine. But I was once a beginer too. I know what exactly what it's like to be blinded by science when all I really wanted was a straightforward answer in plain English!

Don't worry if you think your problem is just too plain daft – no matter how small or simple you think it is, I'll do my very best to help. Just one thing – if it is quite a complicated subject, send it to *Forum* instead. Adam will be far better equiped to deal with it. After all, he knows everything. (Or so he reckons, the big head!)

Apart from that, I'll be writing little tutorials from time to time about particular subjects. For example, a lot of people wonder what the difference between various programming 'languages' is (see the first item this month). You get BASIC as standard with your machine, but have you ever heard of COBOL? What about FORTRAN? And what on earth is this machine code business...?

If you've got any topics you want explained – it doesn't matter how basic you think they are – just write in to me and I'll try to pin them down on paper.

So, what are you waiting for – get writing!

Alex

MACHINE CODE – A DEADLY SECRET?

I've recieved a letter from an A Waddle (don't be shy, let me know your first name!) who lives in Ramsbottom, near Manchester. He (or she) is confused about machine code and how to get it into your machine:

"I have noticed that many programs I would like to use are written in machine code, which alas I do not know how to use. Do I need an assembler?" he/she writes.

Machine code is the language that computer chips themselves talk in! It's a complex system of codes and numbers that takes a great deal of practice and reading-up to master. The advantage is that although it's difficult and time-consuming to learn, if you can write programs in machine code they will be faster and more efficient than any others because it's like 'talking to' the chips directly.

But because machine code is so complicated and tricky there are easier programming languages like BASIC. BASIC lets you write your programs with much more easy to understand commands, and then converts these commands into machine code itself.

An assembler works in a similar way. It allows you to use nice friendly names to represent the machine code. Think of it as providing a relatively easy way of putting all those horrid numbers into the computer. That's not to say it makes it easy, though! I don't have a clue when it comes to machine code. I just end up getting muddled!

You would only need an assembler if you were to actually write a program in machine code yourself (perish the thought!). If som body else has written the machine code pr gram already, then the numbers have all be worked out, so you don't need an assembler help you. All you have to do is load these nu bers into the computers memory.

In a commercial game bought from a sho the machine code is loaded into the compute memory from the tape or disk. In this case y only need to type RUN" and the computer do the rest.

With a listing from, say, *Type-Ins*, t machine code numbers will be there as part the BASIC program. When the BASIC progra is run, it puts all the machine code into t computer's memory for you.

It's only when a listing is in assembly co mnemonics (*words* to you and me – mnemo ics is what the eggheads call them) that you need an assembler to type it in. This is o likely to occur in an article on machine code the first place, so you'd need to be pretty mu into machine code to want to use it.



WHAT'S A CONSOLE?

We've all read the rave reviews in *Amstrad Action* about the new Amstrad GX4000 console. But what the devil is it? What difference is there between it and a 'normal' computer? Why on Earth would anybody want to buy one?

The main difference between the console and a CPC is that there is no way for the home user to program a console. A computer has a keyboard, allowing you to type in your own programs, and run serious applications such as word processors.

Because you can't type anything in on the console, there will never be the need to save things to tape or disk. So all you ever need to do is load the programs.

When a program is loaded into the computer in the conventional manner, it is read into the computer's memory a byte at a time. (A byte is a term for a tiny section of memory – the CPC has over 65,000 of them!) This takes ages – especially on tape. (As 464 owners will no doubt be aware!)

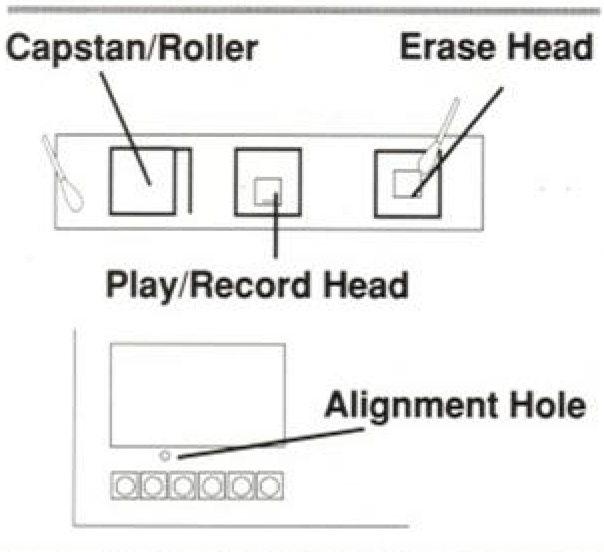
The solution that console manfacturers came up with was to put the complete games directly onto special memory chips that retain the game program even when the power is turned off. These chips are mounted onto small circuit boards and enclosed in plastic cases. These are called cartridges.

Cartridges have several advantages. Most importantly, there's no more waiting for those games to load. Beacuse they are on memory chips, they load instantaneously as soon as powe is applied. They are more reliable too – you don't

TAPE LOADING TROUBLES?

Tape loading troubles are the most annoying thing. After waiting for five minutes for the flippin' thing to load, the blasted machine coming up with 'READ ERROR' is enough to send anyone stark raving mad. It just makes me want to scream!

What's worse is if you're the owner of a computer that does it all the time. One such poor soul is Paul Hart from Worcester. He bought a second-hand computer which worked fine when he got it. Problem is, now that he's had it for a couple of months, some of the games won't load any more!



Well, it is unlikely to be anything wrong with your computer, Paul. I think instead that the tape heads are plain old dirty (tsk tsk!). The parts that that touch the tape get covered in all manner of disgusting filth and you'll need to give them a good scrubbing. You could buy a cleaning cassette from Woolies, but they aren't really that effective, and if used too often will damage the tape heads. Cleaning cassettes are abrasive. They work by scraping the surface of the heads – like a brillo pad on an two week old lasagne dish. It's best to leave them to soak overnight in washing up liquid (lasagne dishes, that is).

A much gentler and more effective way to do do your cleaning is to get a bottle of meths and a little cotton bud (you could borrow one from your sister's make-up bag – ask her first!). No, you don't dirnk the meths. Just dab the cotton bud in it instead. Then gently wipe all the exposed parts with it (see the diagram that Ollie has so kindly drawn for me). The dirt will vanish and your tapes should load as good as new!

If you still have problems then don't despair! Another common factor in tape loading errors is incorrect alignment. For this you'll need to get hold of one of those tiny jewellers' screwdrivers. There should be a little hole on top of the cassette unit. This depends very much on the type of cassette player you have. The 464 has the tape built in, but if you're using a plug-in one then it may be slightly different from the diagram.

The methods are slightly different depending on whether you have a 464 with its built-in cassette recorder, or one of the models that uses an external one.

Checking the alignment out with an external cassette recorder is the easiest. First thing to do is unplug the cassette deck from the computer. Get a music tape that you're familiar with (I find *New Gold Dream* by Simple Minds to be perfect for the job). Put it into the cassette deck and press Play. Don't get too carried away listening to the music though, 'cos you've got work to do! Listen very carefully to the sound, and insert the screwdriver into the hole. It should slip into the head of the screw and rotate it just a fraction. The sound should sound either duller or clearer. Keep rotating the screw – just a fraction at a time, mind – until you're satisfied that you have got the crispest signal possible.

The problem with the 464 is that you simply cannot hear the sound from the built-in cassette unit. Well, you can, just about, if you turn the volume up to full. It's very faint and muffled though, and it's very difficult to tell whether the sound quality has changed at all.

So the job's a bit more fiddly, but it can still be done. Use a normal Amstrad computer cassette, listen for the sound of the blocks as they load in. You should just about be able to discern a difference in pitch as you turn the screw. A combination of sound, and how well the computer reads the blocks should let you when you're done.

For a cassette player to 'read' the music perfectly, the cassette heads must be at perfect right-angles to the tape. They are set to be at the factory, but with cassettes being knocked around so much, they can drift after a while. The little screw adjusts this angle and the crispest sound indicates that the alignment is spot on.

Syntax Errors

Newcomers to computing will probably encounter those wise words more often than anything else. Syntax Error simply means the computer hasn't got the foggiest idea of what you're on about. When you write a program in BASIC it expects you to talk to it with a set of pre-defined words. Anything outside this limited vocabulary and it won't be able to act upon the information, so it'll stop, all confused like.

To avoid such errors you'll have to make sure your typing is spot-on. Every letter needs to be correct, and all spaces need to be typed in too.

There are plenty of other errors that may catch the unwary, not least because you can often get a Syntax Error in a line when there's nothing wrong with it! Instead, the error may be in another line that affects that one – just one of the joys of programming!

If you come across a Syntax Error you can't get to the bottom of, or some other programming quirk, drop me a line – chances are I've had exactly the same problem myself!

get those blasted loading errors!

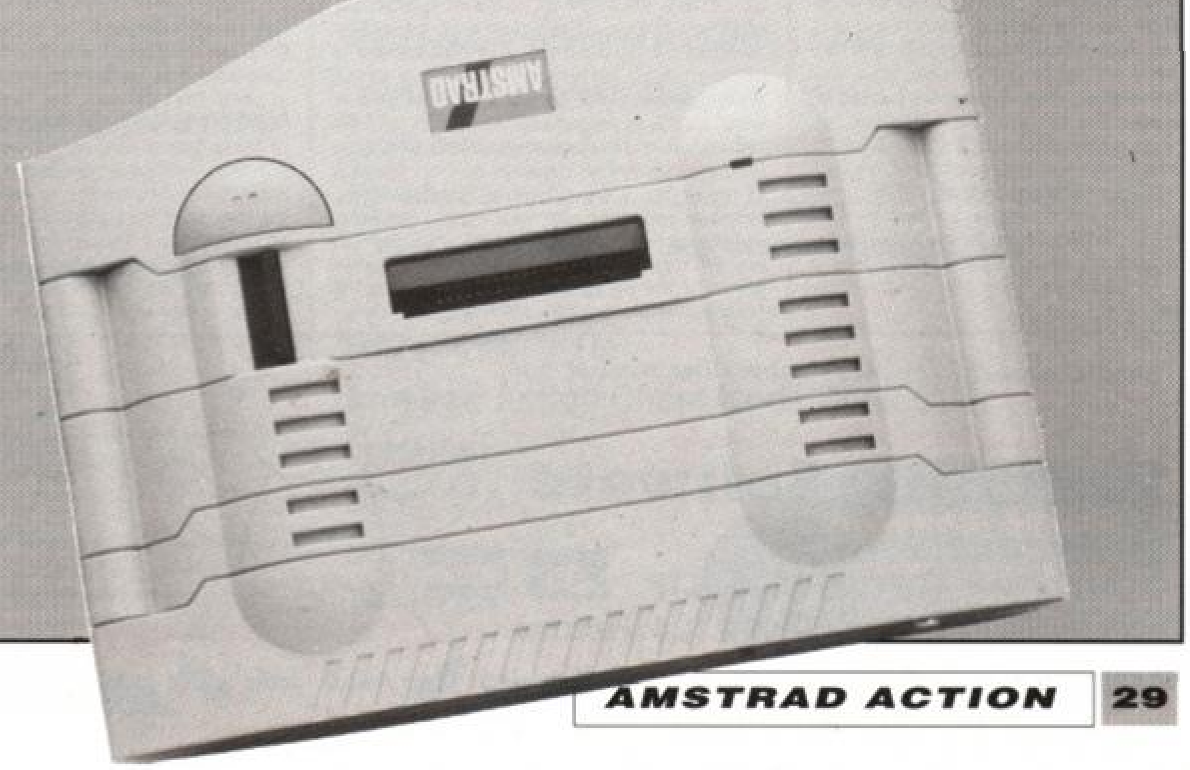
Another important factor – especially as far as the software producers are concerned – is that these games cannot be pirated easily. Not without lots of powerful professional equipment at any rate. In other words, games can't be copied illegally and then sold at reduced prices or even given away.

On the downside, cartridges are far more expensive to produce than simply getting a batch of tapes duplicated. This is reflected in the relatively high cost of console games.

So why would anyone buy a console when the games are so much more expensive? Well, as I mentioned earlier, there's no boring wait for games to load. But there is much more to it than that. Amstrad have implemented several new features that are only available on cartridges. This means better, more advanced games!

The Plus computers give you the best of both worlds. You can use them as normal computers, or you can plug in a cartridge for extra fun!

● It's a console, but what the devil is it?



BrunWord

Complete Word Processing Package £30

BrunWord 6128 is a complete word processing Package consisting of a word processor, spelling checker and card filing programme. It out performs all other word processors for the CPC6128.

BrunWord uses its own high speed screen routine, giving it a very fast response. The editor features are logically arranged, to be easy to learn and the spelling checker with its dictionary load into memory at the same time as the word processor. The whole system is very convenient and exceptionally fast. It is supplied with an introductory tutor file.

BrunWord Features

*40, 80 or 128 columns. *Typing speed 200 words/min. *True insert or overwrite. *Justify or unjustify paragraph or whole text. *Balanced justification. *Instant word wrap. *Block save, move, copy, insert and delete. *Local editing with word delete/undelete. *Adjustable margins and TABs. *Word count. *Column/Line/Page display with file name. *Find and replace. *Help menus. *Memory files. *Single character embedded printer commands (18 with 3 codes and 21 with 10 codes). *Page throw markers. *Multiple copies. *Odd/even page headers/footers with page numbers. *Multi file printing. *Print specified pages. *Use any printer. *True display super/subscript numbers. *User defined characters. *Load/Save ASCII files from/to other word processors. *Files can be encrypted. *Maximum file size about 9 pages.

BrunSpell Features

*Memory resident programme and dictionary. *Checks 4,000 words/min. *30,000 word dictionary. *No American spellings. *Add up to 5,000 of your own words. *Instant lookup. *Helps to find correct spelling. *Automatic correction.

DataFile Features

*Alphabetical, numerical, date sorting. *User defined headings. *Search routine. *Data merging. *Label printing.

Quotes

"It may seem that I have just written a very long advert for BrunWord 6128 but I haven't, I'm just so impressed."
(Phil Craven, ACU Feb 90, page 25).

"One such is Peter Brunning's BrunWord 6128 which is without doubt in my mind, the most powerful and friendly word processor available for the 6128 today, with the possible exception of.... BrunWord Elite!"
(David Dorn, ACU July 90, page 43).

How They Compare

	BrunWord 6128 & BrunSpell	Protext Disc & Prospell	Tasword 6128 & Taspell
Typing into 241 word paragraph Typing into start of text	218 w/m 218 w/m	218 w/m 218 w/m	16 w/m 150 w/m
Scroll to end, line by line	1 min 27 sec	2 min 2 sec	2 min 25 sec
Justify paragraph of 241 words	1 sec	0·2 sec	34 sec
Change appearance to format and Appearance to Format	17 sec	17 sec	53 sec
Spelling check 3366 words Average speed Disc changes	52 sec 3883 w/m None	6 min 24 sec 526 w/m 8	18 min 46 sec 179 w/m 3
Spelling help 'NECESERY' Spelling check word at cursor	1 sec 0·5 sec	12 sec Not possible	Not possible Not possible
Screen format - columns Page boundaries	40, 80, 128 Shown	40 or 80 Not shown	80 only Shown

Info-Script

Complete Data Processing Package £50

Info-Script includes BrunWord 6128 and BrunSpell. The word processor and database can be resident together, giving the convenience of access to both programmes with no disc delays.

Info-Script is written around the full BrunWord 6128 word processor, enabling many routines to be common. This makes a very compact combination and allows both programmes, 6 pages of text and 1000 addresses to be in the memory at the same time using a standard CPC6128 (or 6128 plus). The great advantage of this is the speed and convenience of no disc delays.

Database Features

*Very fast (e.g. takes 1 second to search 2000 addresses for surname 'Smith', initial 'B'). *Specific field search and/or progressive general search. *Instant sort on any field, alphabetical, numerical, date or reverse order (zero time as the data does not move). *3 sets of user defined headings for each file. *4 markers for instant selection, plus one temporary marker. *Markers can be cleared or inverted and any pair can be added (allows complex searches to be quickly and easily performed). *No setting up of field type or length. *Efficient storage. *Relational records, Parents, Sons and Daughters. *Field to field arithmetic. *Direct data merging into BrunWord. *Easy direct label printing, 1 or 2 across, left of 2 or right of 2. *Single or multi-step.

Data Merging Features

*Simple intelligent system, &N &A &D construct full name, full address and date. *&1 &2 etc specify individual fields. *Insert or fixed format merging. *Automatic justify after merging. *Single step (see before printing) or multi-step. *Stop any time, go to word processor, restart same place. *Merge data from several records for summary, invoice, purchase order etc. *Arithmetic. *Running total. *VAT total. *Conditional loading. *Conditional printing. *Repeat patterns.

100 Letters £15

100 Letters is a utility for use with Info-Script, enabling pre-written letters to be easily selected and personalised. It is supplied with a library of 50 letters but even the most cautious users will be able to write simple letter patterns to expand the library to '100 Letters'. If multi-purpose patterns are used then the upper limit depends only on the skill of the writer. A third type of letter pattern, aimed at solicitors, doctors, school teachers, estate agents etc, consists of up to ten pre-written paragraphs. The user indicates which of the paragraphs are to be used. 40 separate letters can be added using this style.

BrunWord Elite

Elite Word Processor For CPC6128 £55

BrunWord Elite has a unique advantage over its rivals, it can only be used with dot matrix printers. All other word processors are compromised to drive daisy wheel and dot matrix printers.

In the early days of computing a printer was simply a form of electric typewriter. (High quality printing, noisy and very slow). Then came the dot matrix printers, specially designed for computers. (Medium quality printing, not so noisy and much faster). Over the years, the typewriter style has become the daisy wheel printer and although greatly improved, it has been left far behind with the quality, speed and versatility of modern dot matrix printers.

Most word processors, including BrunWord 6128, can use dot matrix and daisy wheel printers. This creates the need for a style of printer control that is acceptable to two very different types of printers.

BrunWord Elite does not have this restriction as it is specifically written to be used only with dot matrix printers. This gives it a unique advantage over other word processors and as a result it is able to provide much more advanced printer control.

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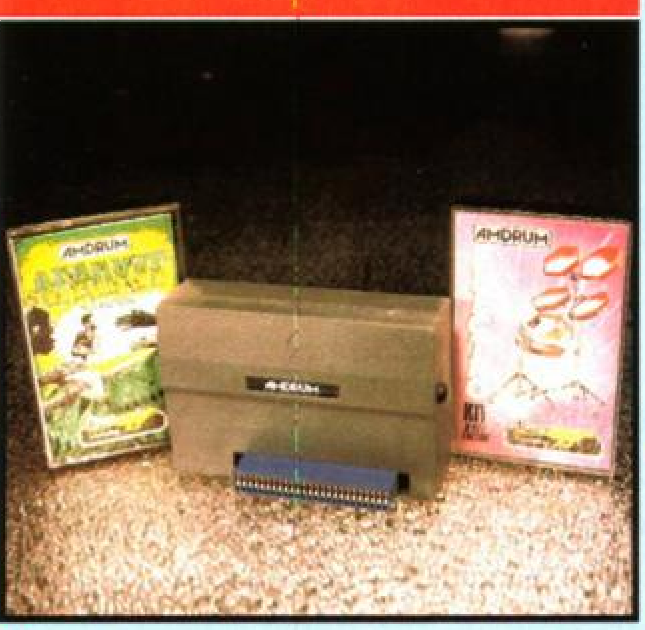
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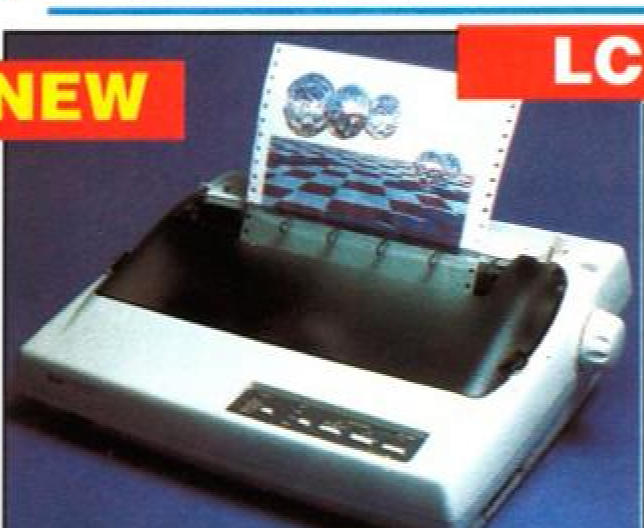
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We must be MAD!

Just because It's Christmas (nearly) and we like you, we've arranged this absolutely *stonking* competition. The prizes are all courtesy of Gremlin Graphics, purveyor of all manner of goodies heading our way. *Shadow of the Beast* got an *AA* Rave this issue, we've got our hands on the incredible console game *Switchblade* for next time and *Lotus Esprit Turbo Challenge* is nearly finished and looking *brilliant.*

THERE MUST BE A CATCH!

And there is! Take a look at the entry form below and *gasp* at the fiendishly difficult questions we want you to answer. And when you've done those, fill in your personal particulars and whack the entry form (or a photocopy) into an envelope and send it to us at the address printed on the form. Cor lumme, it's a tough 'un and no mistake!

FIRST PRIZE:

A PORTABLE TV AND VIDEO SET-UP WORTH A COOL £600...



RUNNERS UP PRIZES:

10 lucky readers will each win a *Shadow of the Beast* poster (as painted by famous sci-fi illustrator Roger Dean) and T-shirt

THE RULES

Well c'mon now, there had to be some, didn't there...?

- The winning entries will be drawn at random from the gigantic *Amstrad Action* competition-drawing hat after the closing date.
- No employees of Future Publishing or Gremlin Graphics may take part, even if they can forge their grannies' signatures.
- No cheating (like Tipp-exing over the questions and writing in ones you *can* answer).
- Multiple entries are sneaky, conniving and utterly immoral. We have handwriting experts in the *AA* offices who can sniff them out in nanoseconds. Offending forms will taken outside and subjected to a series of controlled explosions.
- The judges' decision is totally final, completely irreversible and absolutely no correspondence whatsoever will be entered into under any circumstances of any description that could conceivable arise, whatever happens.
- CLOSING DATE IS DECEMBER 20TH. Any entries arriving after this date will be used to prop up one of the legs on Rod's desk which has been a bit wonky ever since that business with the builders.

TELLY COMPO ENTRY FORM

Well now, we hope you didn't expect this to be easy. After all, you stand to win this stupendous first prize of a COLOUR TV & VIDEO that any one of the *AA* team would willingly KILL for because it's such an incredibly VALUABLE and DESIRABLE prize (sorry about all the capitals, by the way).

This is why we want you to answer the following questions, just to show that you are worthy of this enormous prize (just tick the appropriate box):

1. *Shadow of the Beast* was the game that set new standards of graphics overnight on which machine:

- ☐ The Commodore Amiga?
- ☐ The Sturmey-Archer pneumatic road hammer?
- ☐ Mrs Beetons's Household Management (3rd edition)?

2. Lotus Esprit Turbo Challenge will feature manic one or two-player racing in which car?

- ☐ The Sturmey-Archer Roadroller Comfycrush Deluxe?
- ☐ A Lamborghini Turbonutterpavarottipastabucket GTi?
- ☐ Lotus Esprit Turbo?

3. Name the Gremlin game shortly to appear on the Amstrad console.

- ☐ *Mrs Beeton's Household Management: The Computer Game?*
- ☐ *Godzilla meets the Psychotic Arachnids from Cleethorpes?*
- ☐ *Switchblade?*

Boy, we told you they were tough! Now what you've got to do is write down your particulars:

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KONAMI

Programming in three dimensions



Think you could write another *Driller*? Does *Stunt Car Racer* look like something you could knock up in an afternoon? Starting this month, CONRAD BESSANT presents a three-part series exploring those amazing 3D programming techniques...

In the long-running quest for reality in their games, software houses are always trying to perfect their 3D graphics techniques.

Recently, programmers seem to have reached the limit of the original CPC in this field, with games like *Castle Master* and *Stunt Car Racer* leading the way. In this series I shall be explaining the concepts behind the stunning graphics.

The kind of 3D effects we see in games are often referred to as vector graphics. This is because three-dimensional objects are represented and manipulated using vector methods (often called matrices). Before getting into the programming details, a brief description of matrices and matrix operations is required. For those of you who sit at the back of the maths class reading *Amstrad Action*, don't worry, it's not as difficult as you might expect, and the computer does all the hard bits for you anyway!

Matrix-mangling

A matrix is basically the same as a numeric BASIC array. In other words, it is a grid in which a list of data is stored in an organised way. A matrix could represent anything from the points won by various motor racing teams in various races, to the weekly accounts of a small business. In the case of vector graphics, matrices are used to represent the structure of objects.

A sample matrix is show in figure 1. This matrix describes a two-dimensional triangle. For each vertex (corner) of the triangle, two values are stored. The first is the x position of the vertex, and directly below this in the matrix is the y position. From the matrix in figure 1 it can therefore be seen that there are three vertices (not surprising for a triangle!), the first of which is at x=0, y=100. The next is at x=100,



● Our 3D square-manipulating routine in action.

y=-100. (These positions are not intended to relate directly to the screen, so the negative y value is perfectly acceptable.) Note that a matrix representing a single point (i.e. one containing only two numbers) is often called a vector, hence the term vector graphics.

In BASIC, the obvious way to store a matrix is as an array. The line below sets up a 3x2 array suitable for representing the triangle in figure 1.

```
20 n=3
30 DIM object((n-1),1)
```

Line 20 sets the variable, n, to the number of corners the object has. Using a variable for this means that we can easily change to object to a different type later on.

Naturally, this array is empty to begin with and code must be written to fill it with the relevant data. This code is shown below. All it does is reads the values into their respective places in the matrix from the DATA statement in line 130. The data is stored in line 130 in x0,y0,x1,y1,x2,y2 format so, for example, the first vertex is at x=0, y=100.

```
100 FOR x=0 TO n-1
110 READ object(x,0),object(x,1)
120 NEXT x
130 DATA 0,100,100,-100,-100,-100
```

To display the triangle, all that has to be done is to retrieve the positions of the vertices from the array and join them together on the screen using MOVE and DRAW. The following lines do this.

```
10 MODE 0 : ORIGIN 320,200
500 FOR x=0 TO n
510 xp=object(x MOD n,0)
520 yp=object(x MOD n,1)
530 IF x=0 THEN MOVE xp,yp ELSE DRAW xp,yp
540 NEXT x
```

Because it is easier, from a mathematical point of view, to use negative co-ordinates to describe our shapes, we must use some method to bring the point corresponding to x=0, y=0 into the centre of the screen so that we can see the whole shape. The easiest way to do this is to move the graphics origin to x=320, y=200 (the centre of the screen) using BASIC's ORIGIN command. This method is used in line 10, so from then on the bottom left corner of the screen corresponds to x=-320, y=-200 and the position x=320, y=200 is at the top right of the screen.

Transform your graphics

If you RUN the program given so far you will see that it draws a large triangle in the centre of the screen. But what is the point in doing all this, when similar results could have been generated using a few simple MOVE and DRAW statements? The advantage is that we can now

The mathematics is so simple that it only uses multiplication. However, multiplication is a little involved when it comes to matrices. Suppose we wanted to multiply the two matrices show in figure 2 – figure 3 shows how this is done. The procedure is as follows:

(1) Take the top two numbers from the transformation matrix, and multiply them by the two numbers in the object matrix which hold the position of the first vertex as shown in the diagram. Place the answer from this in the x postion slot of the first vertex in the result matrix.

(2) Repeat stage 1, but for the two lower transformation matrix values, and this time place the answer in the y position slot of the first resultant vertex.

(3) Repeat 1 and 2, but use the next two values along in the object and result matrices (i.e. the co-ordinates of the next vertex). These are marked by a hollow arrow in figure 3.

(4) Repeat step 3 until the end of the object matrix is reached. This stage is marked by a dotted arrow in figure 3.

You will probably recognise one of the matrices in figure 3 as the triangle descriptor. The other one is what is called a transformation matrix. By multiplying these two matrices a new one is formed and, as you have seen, this new one describes a transformed version of the original shape. Different transformation matrices transform the object in different ways – e.g. the one in figures 2 and 3 shrinks the triangle to 80% of its original size. The new, transformed, object matrix is plotted in figure 4 alongside the original shape. The transformation matrix used above can be placed in a suitable array using the following lines, the first of which initialises a 2x2 array called transform.

```
40 DIM transform(1,1)
200 FOR x=0 TO 1 : FOR y=0 TO 1
210 READ transform(x,y)
220 NEXT y : NEXT x
230 DATA 0.80,0,0,0.80
```

The size of the object descriptor matrix depends on the number of corners the object has, but for two dimensional shapes the transformation matrix is always a 2x2 one. This means that the routine above can be used to load any required transformation matrix into memory. All that need to be changed are the values in line 230.

Unfortunately, the BASIC supplied with the CPC does not have a built-in matrix multiplication facility such as that found in the Acorn Archimedes or in 16-bit GFA BASIC, so we have to write our own. The routine below multiplies the transformation matrix stored in the transform array by a three point object descriptor matrix stored in the object array, and puts the result back into the object array.

```
700 FOR x=0 TO n-1
710 t=object(x,0)*transform(0,0)+object(x,1)*
    transform(1,0)
720 b=object(x,0)*transform(0,1)+object(x,1)*
    transform(1,1)
730 OBJECT(x,0)=t
740 OBJECT(x,1)=b
750 NEXT x
```

A detailed description of this is not really necessary, as all it does is perform the matrix multiplication procedure described above.

If you RUN the program so far it will do nothing more than before, but if the line below is added then the program will go back and plot the object matrix on the screen again, after

3D CPC PLUS

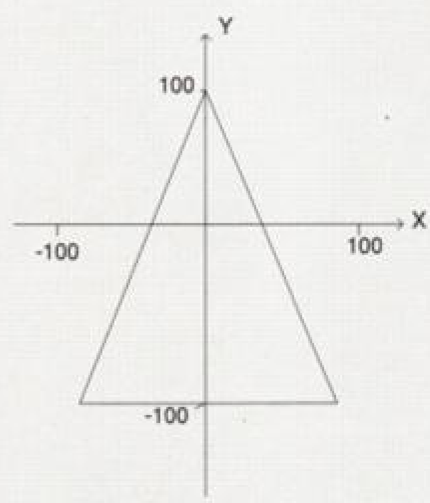
3D graphics on the CPC are now very sophisticated for an 8-bit computer, but with the updated hardware available in the new Plus computers, programmers should be able to produce even more realistic 3D graphics programs that run even faster. The actual appearance of 3D objects will be improved immensely by the enhanced graphics facilities – the extended palette of 4,096 colours will make lifelike shading using raytracing techniques (see part 3 of this series) more feasible, for example.

Furthermore, by taking a lot of the time consuming burden of graphics off of the CPU, more of the processor's time can be spent doing the mathematical calculations needed to manipulate many 3D objects simultaneously. This fact in particular will make 3D graphics programs an obvious area for software houses to explore, as things like two-dimensional shoot-em-ups will not have their fundamental concepts improved so drastically by the new hardware.



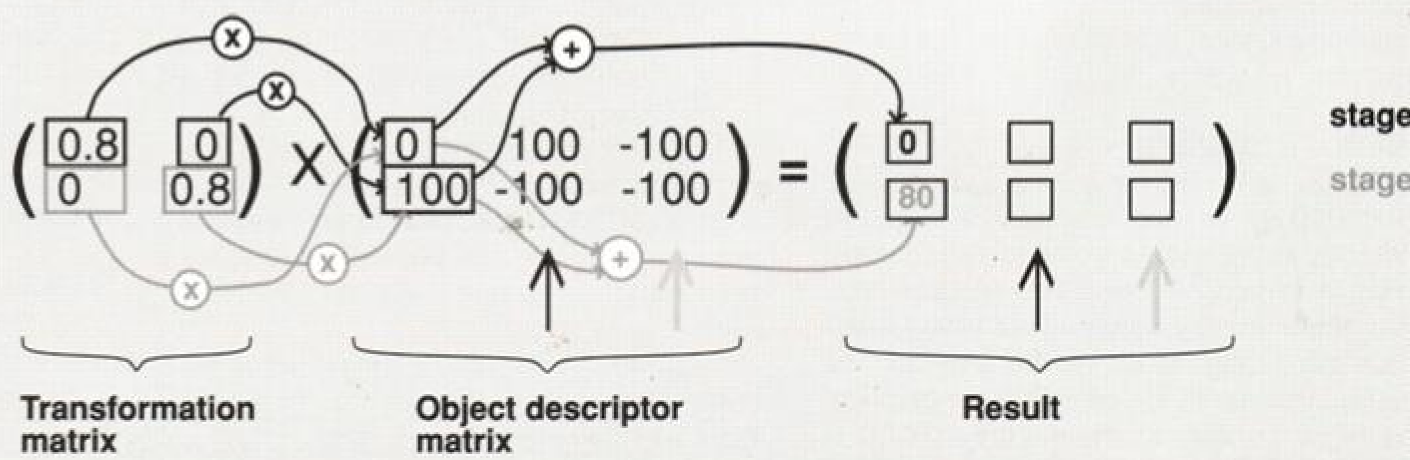
$$\begin{pmatrix} 0 & 100 & -100 \\ 100 & -100 & -100 \end{pmatrix}$$

This Matrix describes......



....this triangle

$$\begin{pmatrix} 0.8 & 0 \\ 0 & 0.8 \end{pmatrix}$$



it has been transformed, and will continue in this loop until escape is pressed.

```
800 GOTO 500
```

As you can see, this creates a multitude of triangles, each one 20% smaller than its predecessor, making it look as if the triangle is flying away from us. This can't really be called animation, though, as the old positions of the triangle are still visible and the triangle doesn't appear to move. Drawing and erasing these triangles fast enough for animation is out of the question in BASIC, but with cunning colour switching techniques we can create the illusion of movement.

The simplest, and most effective, way to do this is to draw each animation frame in a different colour, and then set all the colours to the background colour so that all the triangles become invisible. Then, by cycling through the colours, switching one to the foreground colour each time the illusion of movement is created. Our program can be adapted to do this by adding the following lines.

The first few cause the program to draw only 15 different triangles, one in each of MODE 0's logical colours.

```
400 FOR colour=1 TO 15
410 GRAPHICS PEN colour
800 NEXT colour
```

The next group of lines illuminate each triangle in turn by setting all the logical colours to black except the colour of the triangle we want to see.

```
900 FOR c=1 TO 15 : INK c,1 : NEXT c
910 FOR a=1 TO 15 : FOR b=1 TO 15
920 IF a=b THEN INK b,25 ELSE INK b,1
930 NEXT b : NEXT a
940 GOTO 900
```

This is a very simple colour switching technique. As you will notice, points where different triangles touch become very confused, but it serves its purpose as an animation tool. More professional colour switching techniques will be discussed in the third part of this series.

If you break out of the program using the escape key you may not be able to see what you're typing because the text ink is set to the background colour. If this happens, just type INK 1,25 to put things back to normal.

As I mentioned earlier, different transformation matrices do different things. The one in figure 5 will rotate the object anticlockwise by 24 degrees, with the centre of rotation being the centre of the screen (which is where x=0 and y=0, as we have changed the graphics origin). To incorporate this into the program instead of the shrinking one, just change line 230 to read as follows (more details next month):

```
230 DATA 0.914,-0.408,0.408,0.914
```

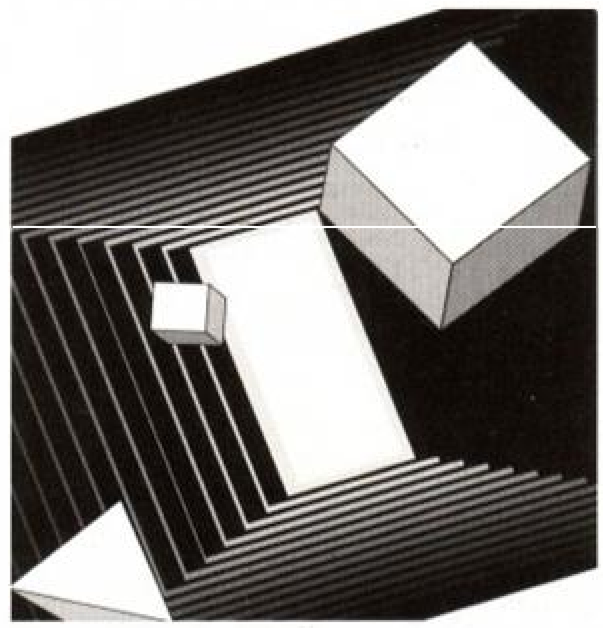
Each transformation matrix will perform the same transformation no matter what object you use it on, so if the object is changed to a rectangle the program will still rotate it. The following lines load the description of a rectangle into the object matrix. The first line tells the program that the object has 4 corners, the next one holds their co-ordinates.

```
20 n=4
130 DATA -100,-100,100,-100,100,-150,-100,-150
```

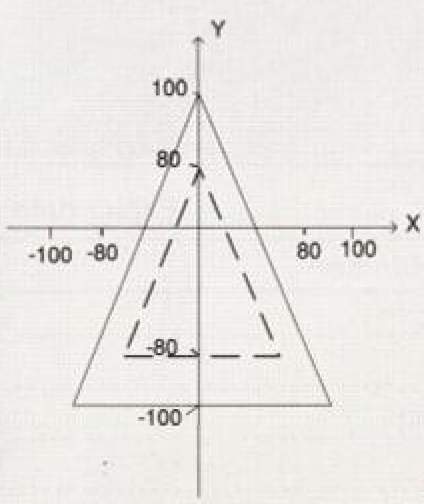
Transformation matrices can be combined to give an even wider variety of possible actions an object can perform. An example of a combined transformation matrix can be loaded into the program given so far by replacing line 230 with the one shown below. This transformation matrix combines the two given earlier in this article to shrink and rotate the object contained in the object array simultaneously.

```
230 DATA 0.75,-0.3,0.3,0.75
```

● **Next month I shall explain how to apply the techniques discussed in this article to three-dimensional animations. In the meantime, why not experiment with different objects and transformations?**



$$\begin{pmatrix} 0 & 100 & -100 \\ 100 & -100 & -100 \end{pmatrix} = ?$$



——— Original object
– – – Transformed object

$$\begin{pmatrix} 0.914 & 0.408 \\ -0.408 & 0.914 \end{pmatrix}$$

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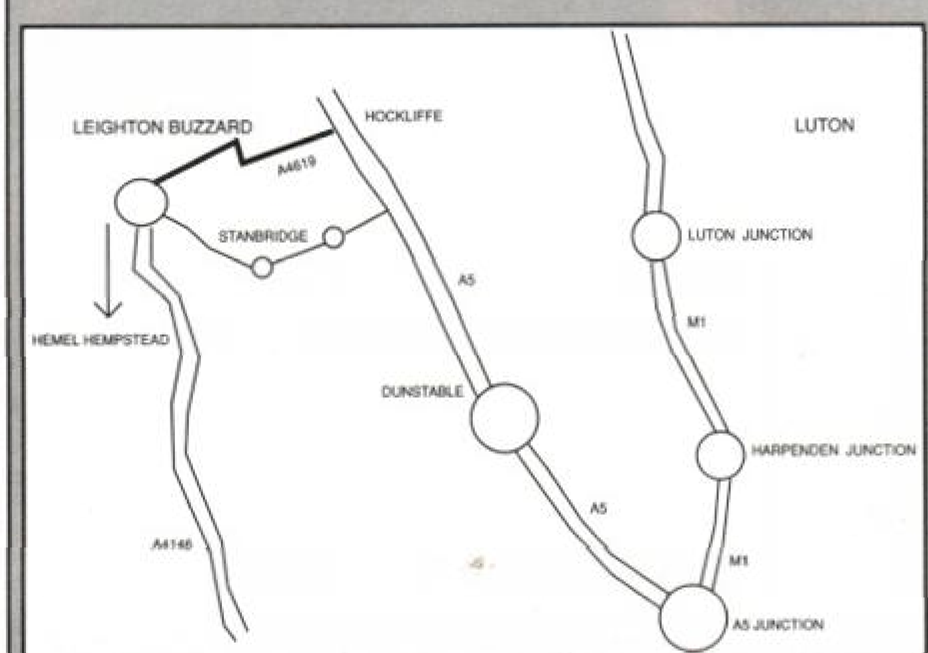
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HOW TO FIND US......





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Play as you learn as you read

JAMES LEACH dons his cap and examines a new approach to educational software...

LEARN TO READ WITH PROF
LEVEL 1: PROF PLAYS A NEW GAME

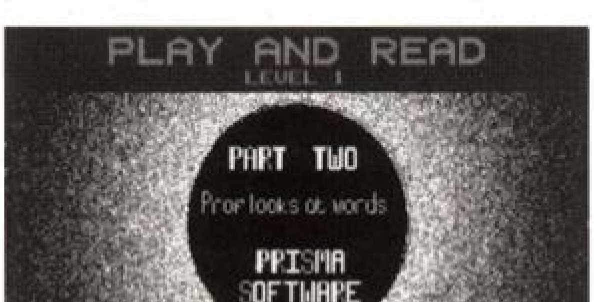
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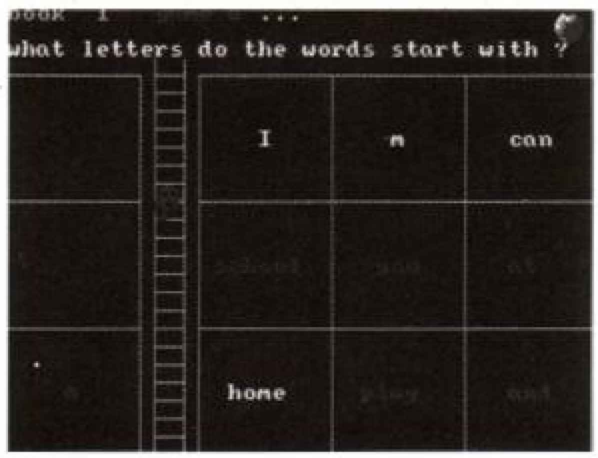
Learn to Read with Prof is a new series of reading tutorials designed to help young children who are just starting the language-learning process.

Its aim is to help children look at the construction of words in greater detail. They gain a phonic approach to reading, as well as help with spelling. Spellings or pronunciation are not drummed in or learnt by rote. Instead, a computer game is used to help the children identify and select letters.

The first thing the child does is listen to an audio cassette. A story, read by TV's famous Patricia Hayes, unfolds. The child is asked to press the space-bar and the cursor keys at certain points which prompts on-screen action. This interactivity holds the child's interest as well as teaching him/her several keywords such as I, book, and read. It also teaches the keys needed for the forthcoming game.



● *Prof* provides a structured approach to the development of literacy skills.



● Prof runs to words which are missing the letter 'a'

Once the child is aware of the keys used, the game itself is loaded. The audio tape does not continue during the game. It is solely an introductory device .

You can select a topic for the game to concentrate on.

● Part One teaches the vocabulary, and introduces the look of the words. No initial reading ability is required.

● Part Two introduces the beginnings of words, vowels or endings of words.

● Part Three teaches sequencing. The child learns to make sentences – this is done in gradual steps.

● Part Four lets children use their understanding of the text to complete a passage. Only the words used in Part One are used. There are 'choose a word' and 'find a word' games in this level.

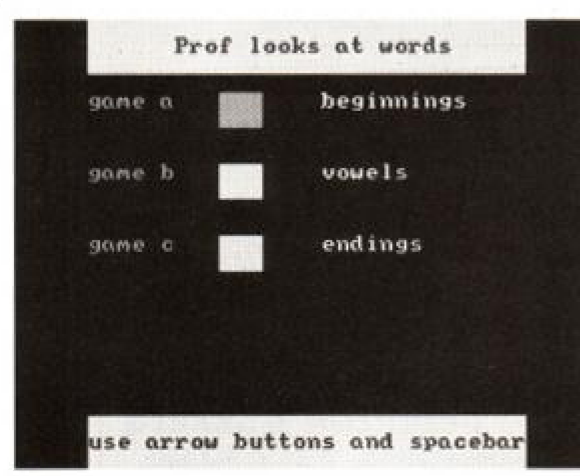


● Finish a stage and a pretty scene is displayed.

Each Part has a number of ability levels, all selectable from a menu, thus enabling a more proficient child to enter at a later stage, or for a child returning to the program to continue where he/she left off.

In the game, the child controls a little red character of the sort that used to get chased around mazes by ghosts. He's called The Prof. He must travel to a letter (or *letters* on further levels), highlight them, and then travel to a word which has that (or those) letters missing. If the child completes this successfully, the little man jumps up and down with evident glee. This game format remains basically the same throughout the entire tutorial.

In Part One there are approximately four letters to place in four words. This value varies depending upon your current level. When you have completed all the words on one level, you are presented with a brightly-coloured graphics screen, such as a cat sitting in front of some shops. You then progress to the next level. When Part Four is completed, the child should be able to complete sentences, read them and change words within them.



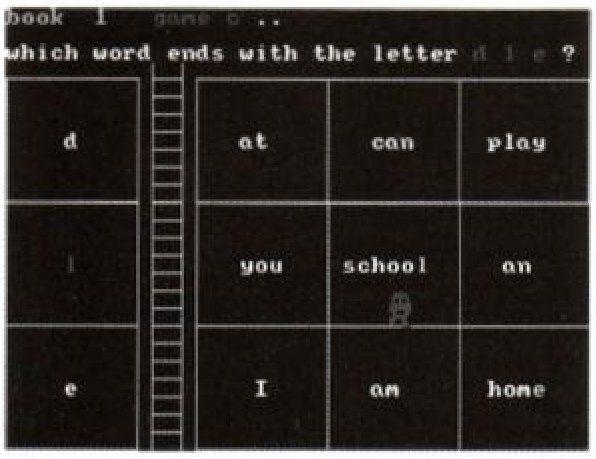
● Select the topic you want to concentrate on.

Accompanying the games are a numbered series of books. These cover the same ground as the games, but in a more "traditional" words-and-pictures way. The books should no be followed when the game is in progress - instead, it's recommended that the books are read after playing the games. They have a useful index of words learnt, so you can monito the child's progress, and tailor it to the spelling and substitutions being carried out in the game.

The words used in both the books and the computer game are typically those found in any childrens' pre-school reading materia. They are all chosen from the Murray an

McNally word list. Book One introduces nine words. These are I, play, school, at, and, home, can, you, and am, while Book Five incorporates such words as pleased, computer, spacebar, buttons, said, and learn. These are obviously more complex in structure, polysyllabic, and occasionally require pronunciation which differs from the phonetic 'look' of the word.

The subject matter of the tutor is centred on the child. The stories are about mum and



● Prof is guided to the letters selected on the left.

dad, school, the computer, and, significantly, how pleased mum and dad are at the progress made by the child in learning to read.

The parent takes an important role in helping the child through all the books and levels. When the child moves Prof to a word, you (the parent) should read that word, and ask the child to do so too. If the spelling produced by the child is correct, the Prof jumps up and done, and a short tune is heard. The child should then say the word, without being told it again. In effect, he/she should be reading the word from the screen.

Overall, the components of the package are fine. The books are well written and produced, the computer program is bright and has nice arresting graphics and sound, and the audio tape is great. It's a pity that the this idea isn't carried further. It worked well with the screen display and the keypresses, and was popular with our guinea piglets.

However, the 'game' which is such an integral part of the package might not appeal to all kids.

Whether the Prof's antics will prove fascinating enough to retain a child's interest in the dismembered words appearing on the screen is debatable, but from our 'field trials', the approach will prove more successful (i.e. more interesting to the child) than traditional book-learning, especially when the adult in charge of the learning session takes an active role in guiding the child and retaining its interest.

THE ULTIMATE TEST...

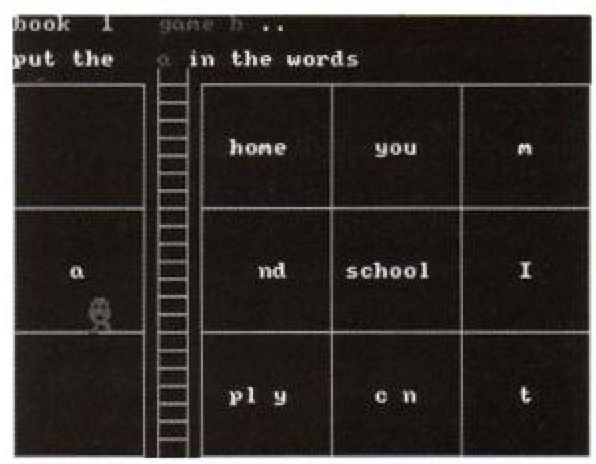
Of course, the strength of the idea of using a computer to help a child learn to read is because the process becomes interactive, and therefore interesting. The 'Play and Read' system employed by Prisma is meant to provide just this mix. But the acid test is always to let the kids have a go. This is just what we did. Several (hyper-active) five and six year-olds were temporarily recruited, and were helped through *Prof plays a new game.*

The audio-cassette-based introduction was a hit. It is interesting and requires the attention of the listener, who must press various keys when instructed by kindly old Pat Hayes.

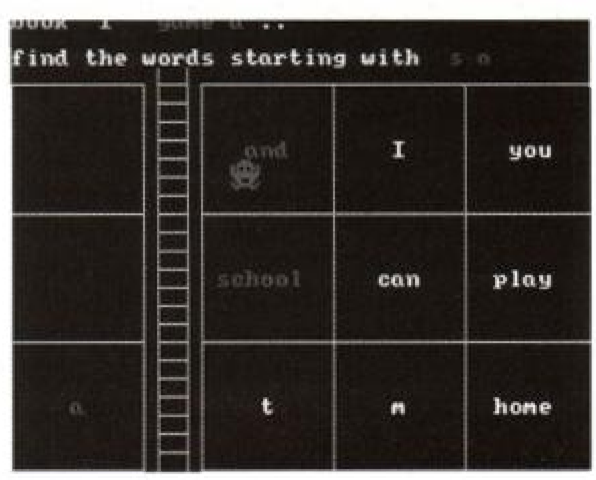
The game itself must of course, be set up by an adult. The ability levels and game speed need selecting for a start. Game speed is important because it determines how rapidly the Prof responds to keypresses. This caused the first problem. The red Prof character must be moved accurately by the cursor keys. He has to climb a ladder, getting off a certain floors to access different letters. If the speed is set at fast, he moves too quickly if you're careless, overshooting his destination. This can get rather fiddlesome for young fingers. If the speed is on slow, the character can take a little too long to get to his destination and boredom can set in. The game format stays the same for each part and level, and, whilst the children were able to understand and get to grips with it, they did tire of the same-ness.

Prof seems to be researched, written and presented very thoroughly. A lot of its success depends on the accompanying adult, though. The child's enthusiasm must be gained and held, and he/she must not be made too aware of the learning process – we got on much better treating *Prof* as a game rather than a lesson.

The game sequence, unfortunately, doesn't vary enough to keep a child interested for long. All the letters and partial words can look a little forbidding, and the fairly high degree of accuracy needed to guide the Prof to his destination can cause frustration.



● Prof has to take that 'a' to all the words missing it.



● Correct selections result in celebrations from Prof.



● Another 'reward' scene.

GOOD NEWS

- Unique 'multi-media' approach to learning
- Genuinely interactive

BAD NEWS

- The 'game' is a little basic



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ActionTest

We thought an 8-bit version of Shadow of the Beast *would be a joke.* It's no joke.

SHADOW OF THE BEAST

It's the game that set new standards of graphics overnight on the Commodore Amiga – but how does it convert to the 8-bit CPC? Gremlin Graphics took the job on, and you can find out the result on page 50...







● *Sim City* lets you elect yourself mayor and build your own metropolis. Page 68...



● Tanks a lot! (And other awful puns.) Loriciel's *Sherman M4* WWII sim rolls in on page 66...



● Does *Kick Off II* stomp all over its predecessor? Check out the results service on page 63...



● *Snow Strike* gives you the chance to wipe out all those Colombian drug barons on page 64...

Toyota Celica GT4

Gremlin staged a very special launch in the Welsh forests for its new Totota licence rally game. Andy Ide, from *AA's* sister mag *Your Sinclair* said that he'd be there if it was the last thing he did. It nearly was.

Byoboyoboy. Have you ever turned the corner of a muddy, gravel-covered, pot-holed and let's-face-it-downright-dangerous road at speeds of up to 110mph? I have. So ner...

It all happened on a rather soggy afternoon in late October somewhere in the middle of Wales. I was the guest of Gremlin, which was promoting its up 'n' coming *Toyota Celica* racing epic, and had tootled up to Newtown for a day of general tomfoolery.

The first event on our hectic schedule was a morning spent clay-pigeon shooting – that is, it would have been a morning if we hadn't all got split up on the way there and got lost! Still, the remaining hour and a half was a lot of fun, blasting little diskette thingies out of the sky with a degree of beginner talent which our trainers found truly astonishing. (Those of them not busy examining the holes that had mysteriously appeared in their hats, limbs and other accessories...)

After lunch we scootled off to some enormous forest in the middle of some enormous moor. And there we found the Crazy Car, so called because when you turned the steering wheel to the left you'd end up driving right, and when you turned the steering wheel to the right... but I'm sure you get the idea. The plan was for everyone to make timed runs round this figure-eight course sort of thing with a small (but presumably deep) reservoir on one side and a massive great precipice on the other! I just thought you might like to know I – ahem – came second!



● You'll be able to drive a car just like this (on your CPC, that is).

But these two 'entertainments' were nothing compared to what came next. The main event of the day was always going to involve Team Toyota, the rally offshoot of the car company, but when it transpired that its driver, David Llewellyn, was going to be 'in the woods' that day practising for the Lombard rally in November, TT asked him if he wouldn't mind giving us all a spin. Which is exactly what he did – and in more ways than one! (groo...)

Strapped into the passenger seat like rats in a trap, Dave and I crept up to the starting line. A bit of explanation from the speed freak himself (like how he wasn't going to use a clutch for the first three gears!) and VVVVVR-RROOOOOOOOOARRRRRGGGGHHHHH!!!!!!!

Grrruummmmph...! Er, can we go back for my stomach, Dave...? I couldn't believe the acceleration, the way his arms were flying up and down either side of the steering wheel – just about as often as the helmet on my head was slamming into the roof! And when we swept round corners half the car wasn't actually on the road at all. On the straights, he told me later, we were doing 120mph, and this was a paltry seven-tenths' his usual speed.

We got to the end of the track.

"You okay?"

"W-w-w-w-well..."

"Ready to go back?"

"I..." VVVVVRRRRRRROOOOOOMMMMM-MM!!!!!!!!!!

It only lasted five minutes but I'd have stood in the rain for a week just to get inside that car! Thanks, Dave, thanks, Gremlin, and we look forward to seeing the game real soon!

GREMLIN GETS AN ENDORSEMENT!

...From Toyota, that is. The game itself has been two years in the making, and Gremlin reckons it's used the same determination to come up with an out-and-out rally driving sim that Toyota used throughout the past season to firmly plant the Celica GT4 at the top of the rally driving tree. (© *Encyclopaedia of Totally Muddled Metaphors, 1931 – ed.*)

The car won the Shell Oils British Open Rally Championship for the second year running, with Welshman David Llewellyn at the wheel, while another GT4 looks certain to scoop the World Rally Championship, thanks to Carlos Sainz of Spain.

But what about the game? Well, you get to tackle several different courses in a wide variety of weather conditions. You skid round bends, leap over crests and generally pile off into the scenery like a complete madman ('till you get used to it, we guess). More than that, we don't yet know – though if it shapes up as well as *Lotus Esprit Turbo Challenge* looks like doing, we're in for a cracker!



fun school 3



Under 5s



Count up to nine to help teddy get the honey



Pair the large letters at the alphabet fair



5 to 7s



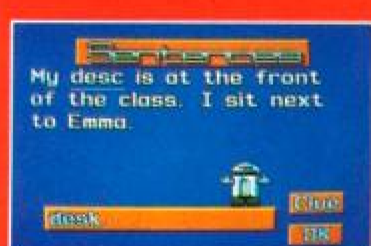
Tell the time and watch the clock come alive!



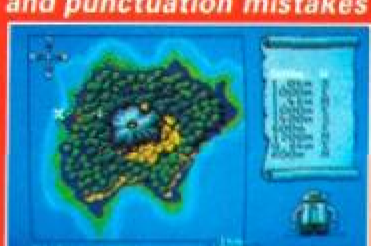
Guide the frog from log to log to solve the sums



Over 7s



Correct spelling, grammar and punctuation mistakes



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SHADOW OF THE BEAST

Gremlin ● £12.99 cass, £15.99 disk joystick/keys?

AA RAVE! RAVE!

You've got a face like a rattlesnake, a skull like the back of a Ford Anglia and a wardrobe consisting of two hankies and some string. Your skin's got a pallour only marginally healthier than month-old tripe and you can't even walk and punch things at the same time.

Not nice, eh? Mind you, you're a darned sight nicer than the other guy. He is the Beast, and responsible for the murder of your own father and countless other innocent humans. Yes, you were human too, once, and it was the Beast who turned you into this horribly, ghastly snake-headed horror. Which is why the Beast must pay.

Shadow of the Beast is a scrolling kick-em-up with lots of exploring and timing puzzles to keep you busy as you search out the Beast, belting its minions into oblivion as you go. And you're pretty good at belting things, because although you'd get a few funny looks on the bus, you're tough as nails, with a Swarzenegger physique and fists like concrete.

Your fighting moves are limited – which makes learning them easy – yet highly effective. Hit the Fire button while you're walking and you stop briefly to bash whatever is in your path. Press Fire while you're jumping and you deliver a devestating kick. Push down on the 'stick and fire, and you punch the lights out of any ground-hugging creepie-crawlies that come your way.

The key to success is timing your moves. None of your assailants are that tough, but they do have a habit of creeping up on you unawares. And there are some baddies, like bouncing eyeballs (yuk!) and dangling spiders as big as your average family car, that you just have to work around – you can't destroy them.

Take a hit from one of these – or from any other creature – and you lose one of your twelve energy points. When all twelve have gone – well, it's back to the start, I'm afraid.

Let's start at the beginning, though. First of all, you've got to explore your surroundings – watch out for nasty bats, circular sun-god-type nasties and man-traps on the ground. Head right and you'll come to a well. You can actually get into this well and climb down it... but don't bother. When you get to the bottom it'll tell you you need a key. Great. What you really should have done was head left...

This time you'll come to what looks like a treehouse. Go inside, and you're into Level Two, an underground maze of tunnels and ladders. Watch out for giant ants, club-wielding ogres, fireballs, huge dragons' heads that stick out of the floor and ceiling without warning, and – thank goodness! – potions to restore your vitality.

To get out of this level you need firstly to learn your way around and secondly find some way of wiping out the grisly end-of-level guardian. The answer is a creature which squats at the end of a corridor on the other side of the complex. It sits there, gobbing balls of fire at you periodically and lobbing a sphere up and down. You need to choose your moment, duck in there and hit the sphere before dodging back out of the way. Hit it enough times and it disappears. You now have a weapon to tackle the guardian with...

...And lo and behold, you emerge up through the well! The next section is above ground again, but much tougher than your first tentative little forays. You tread warily for what seems like hours but can only be a few minutes across this insect, bat and eyeball-infested territory, finally



● You get scrolling descriptions between levels.

SECOND OPINION

"Graphically, one of the most innovative games to appear on the Amstrad for some time. A bit long-winded at times but if you've got the patience it's an enjoyable and playable arcade romp." **AW**



● Ah – a key!

arriving at a castle with a doorway.

You go inside, into a dark, gloomy corridor. Take a few steps and it becomes darker and gloomier. A few more steps and you're in pitch darkness. Yes, you've forgotten something. Head back for the doorway (if you can find it again), go outside and head to the right until you come to a torch mounted on the castle wall. Leap up to grab it and head back for the doorway.

Level Four is slightly smaller than Level Two, and only marginally tougher. There are a whole new range of hazards to contend with, though. Many of the ceilings drip poison, strange (and indestructible) hopping creatures first seen above-ground must be jumped over,



● Above ground, but heading for the underworld...



● Ouch! Those tree roots appear from nowhere.

and at one point giant spiders hang from the ceiling, gently moving up and down. You can't kill them – so can you dodge past them?

As with the second level, there are power-ups for your vitality and objects to collect. One of these is a spanner you'll need later, the other is a gun. You'll need the gun for the end-of-level guardian, which will require some pretty fancy jumping and shooting to defeat.

The next level is really quite different. Your warrior is no longer running, but zooming along in underwater gear (or is it a spacesuit?). Suddenly *Shadow of the Beast* shifts tempo into a horizontally-scrolling shoot-em-up where you face more bat-like beasties but also lasers and missiles.

And this, dear friends, is as far as we are taking you. From here on in, you're on your own as you search out the Beast...

Graphically, the game is unusual in using the Amstrad's four-colour mode. This leaves the screens looking often dingy and empty, but pays off handsomely in terms of detail and animation. The above-ground sequences suffer from the attempt to shade the sky and foreground, but the rest look really excellent. A bold, but very wise, move by Gremlin.

Scrolling is a bit iffy here and there, but set agains the general standard of the graphics, that's a small point. Collision detection is excellent, and you can judge positioning almost to the pixel – essential with some of the timing puzzles. Use a fairly heavy joystick, though, because the wrong move in the wrong place is frequently catastrophic.



● This weird beastie must be jumped over.



● You can't kill these spiders – dodge them instead.



● Just as well you found that gun, really!

The soundtrack is quite listenable and atmospheric. You can actually play the game for hours without feeling the usual compulsion to turn the sound off! The effects are clear and effective – the 'thwacks' you get when you hit something help you time those fighting moves to perfection.

All this wouldn't help much if the game itself wasn't up to it. Fortunately, it is. *Shadow of the Beast* on the 16-bits was a graphical tour-de-force, but the gameplay was tough, shallow and incredibly frustrating. Well the good news is that the Amstrad version, thanks to Gremlin, has retained all of the virtues and none of the vices of the original. The graphics and soundtrack are great, but the game is much easier and much more playable. The whole package has been very well judged indeed.

There are really only two gripes. The first is fairly minor – the are several long stretches where either nothing much happens or you get a whole barrage of enemies which can all be eliminated easily with the same series of moves. You can't really relax, but there's no challenge either. The second gripe is a biggie. Once you lose all your vitality you're sent right back to the start. It doesn't matter how far you've got into the game, there's only one restart point. Ouch! That means that even if you can do the first few levels with your eyes shut, you've still got to plod through them every time you want to take another shot at finishing the game. OK, so it makes the game last longer, and gives it an epic feel as you have to complete your adventure in one sitting – but that's nothing compared to the frustration and tedium of having to start from scratch every single time you want to play the game.



● Another tricky timing puzzle – watch those lasers.

Shadow of the Beast is a game we thought we'd never see on the Amstrad. A game with a reputation of being all graphics and no gameplay. Well Gremlin has retained its excellent graphics, by Amstrad standards, and tweaked the gameplay to the point where it really is a very good game in its own right.

However, it does herald a less welcome trend. £12.99 on tape, £15.99 on disk? This might be just because it's such a big game (it takes up both sides of a 3-inch disk). Alternatively, it might be the shape (or price) of things to come. We shall have to wait and see.

Rod Lawton

PSYGNOSIS' MILESTONE

Psygnosis was the original publisher of *Shadow of the Beast*, a game which left punters gob-smacked with its sheer graphical excellence. That game alone, with its multi-level parallax scrolling, fantastic backgrounds, animation and sprites, must have sold more than a few Amigas and, arguably, set new standards for 16-bit graphics overnight.

Even the artwork was spectacular, commissioned – as with all Psygnosis stuff – from Roger Dean, famous sci-fi artist of the '70s and the man behind many a Yes album cover.

However, hype-hardened reviewers pointed to the fact that the gameplay really was rather tough, unoriginal and frustrating, and that a price of £35, even with 'free' T-shirt, was squeezing the last drop of loot out of Amiga owners stunned by the graphics. Nevertheless, *Shadow's* reputation as a milestone in gaming lives on – as does that instantly-recognisable lizard-headed warrior – thanks to Gremlin.





● The original artwork was courtesy of Roger Dean, cult sci-fi and album illustrator of the '70s.

FIRST DAY TARGET SCORE

Finish the second level

The Verdict

GRAPHICS 90%
- ■ Only four colours
- □ Excellent sprites and detail

SONICS 80%
- □ Good soundtrack
- □ Useful fx

GRAB FACTOR 83%
- □ Playable right from the start
- ■ Doesn't look its best until you get into it

STAYING POWER ... 85%
- □ Highly playable (and solvable)
- ■ Incredibly frustrating restart point

AA RATING 84%

□ Just a tad too patchy to be a Mastergame

WHEELS OF FIRE

Domark ● £14.99 cass, £24.99 disk joystick/keys

It'll drive you mad. Four compulsive driving games in one box. You'll be taking your life in your hands, so think once; think twice; think "how fast can I go around this corner?"

CHASE H.Q.

Chase HQ gives you a cop's uniform, a nagging administrator called Nancy and a Porsche 928 Turbo. You must catch up with a notorious criminal in his sports car, dodging on the way legitimate road-users, barriers, road-forks and other hazards. Conveniently, the perpetrator has a large arrow above his car.

There follows a great cat-and-mouse chase, during which you must simply ram the enemy repeatedly...

Speed and graphics are astounding, with great colours and wonderfully smooth movement. Sprites are big and flicker-free and the sound-effects maintain this high standard. There is no tune, but the turbo noise is great, and there is decent speech as well.



● *Chase HQ* is fast, tough and looks brilliant.

Hard Drivin'

Hard Drivin' is also found on the *TNT* collection from Domark. And it's a classic. You travel around a stunt circuit, trying to stay on the road and complete the stunts, and trying to avoid other road users lugging their shopping back from Waitrose.

The stunts are all seen in vector 3D, and the game has a Instant Reply facility, whereby you can crash horrifically, and watch it all afterwards in slow motion from an outside view (presumably a hospital bed).

If you go round the course fast enough, you get to race the Phantom Photon. Despite his name, he's not a sub-atomic particle; he's a fast car who you'll have to beat around both the speed and the stunt circuits (you select which one you wish to drive on at a junction).

There is much fun to be had with *Ha[rd] Drivin'* but Domark is right; it certainly is ha[rd]. Controlling the vehicle is not easy, and thou[gh] you have three lives, you'll curse and s[wear] whenever you lose one.

Rudimentary sound, mono (but fast) vect[or] graphics and difficult gameplay don't sou[nd] promising. But in fact *Hard Drivin'* is great.



● *Hard Drivin'* lives up to its name.

TURBO OUTRUN

Turbo Outrun is alas the weakest of this bunch. You've a Ferrari F40, you've got your best girl by your side, and the open road ahead. That's about it, really. You're racing across the USA, trying to beat a mysterious grey Porsche 959, and the clock. Oh, and you have a number of turbo boosts to hurl you across the continent. You'll need them to overcome the barriers and boulders which block your path.

Graphics are clear, with a satisfying impression of blurred speed. However, control is sluggish, and the car lurches slowly from roadside to verge as you turn. To represent other road surfaces, the car sometimes becomes even more un-responsive.

There are no spot sounds. Instead, a tune plays continually – OK, but no replacement for the tyre-squealing, engine-revving sounds that should have been included. The result is a curiously soulless game, with many nice touches, but no great overall appeal.



● *Turbo Out Run*'s good, but not great.

POWER DRIFT

Power Drift is a different kettle of fish. You have a sort of dune buggy, capable of 244 km/h. That's over 150 mph in real money. You pick a driver from a mug-shot gallery, and off you go, racing eleven other bods. The buggies tear round small, twisty courses, bashing each other and vying for the lead. You must achieve at least third place to continue through to the next round. And there are 27 tracks waiting.

The sheer fun of the game, with its responsive play, is its greatest asset. It's fast, furious, frustrating and other things beginning with f. The buggy is very controllable, and you learn to drift the back out round corners, thus powering past your opponents. Sections of the track are elevated, and seemingly unsupported. Your forward vision is cut down dramatically, so you might plough into the back of some other speed-freak pootling along just over the crest. The kart has two gears (fast and very fast), and will spin out if hit badly enough, so the worst that happens is you watch your mates whizz past while you build up your speed once more.

Nice, chunky graphics and an insistent soundtrack give this game a lovely sense of atmosphere. It's a scorcher, and after you start playing, you'll be hooked for ages.



● *Powerdrift*: great competitive fun.

SECOND OPINION

"OK, so Turbo Out Run isn't going to win any records, but even that's not bad. A driving fan's dream!" RL

The Verdict

Chase HQ	AA54	90%
Turbo Out Run	AA52	64%
Power Drift	AA51	91%
Hard Drivin'	AA53	80%

AA RATING 84%

□ Overall, *Wheels of Fire* is a high quality compilation. *Turbo Outrun* is the worst game, but even that is OK. If you like driving games, and you don't have any of these, then buy this collection. It'll blow your wheels.



Clive Barker's
THE NIGHT BREED
CADAL
THE ACTION GAM
THE
TAKE CONTROL OF BOONE AS HE MAKES HIS WAY THROUGH THE DEPTHS AND CAVERNS OF NECROPOLIS TO
HAS
THE UNDERGROUND CITY OF MIDIAN WHERE DWELL THE NIGHTBREED. SUPERNATURAL CREATURES WHO HAVE SHIELDED THEMSELVES FROM
THE INHUMANITIES OF MAN.
NOT ONLY MUST YOU CONFRONT AND DEFEAT THESE CREATURES BUT
NIGHTMA
YOU MUST PIT YOURSELF AGAINS
MURDEROUS REDNECK GANG FRO
NEARBY ABOVE-GROUND CITY AND ULT
DEFEAT THE INSANE SERIAL KILLER KN
"THE MASK
BEGU
THIS ALL-ACTION ARCADE ADVENTURE
YOU TO SHOOT, PUNCH AND JUMP
EXPLORE THE TERRIFYING UNDER
ENVIRONMENT OF THE NIGHTBREED.
THEY'R
COMIN
SOON!!!
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AVAILABLE FOR COMMODORE
SPECTRUM - AMSTRAD
ATARI ST AND CBM AMIGA.
ocean



IVAN 'IRONMAN' STEWART'S
SUPER
OFF ROAD
GRAB THE WHEEL, AND HIT THE NITROS!
AMIGA
ATARI ST
IBM PC
C64
AMSTRAD
SPECTRUM
"Highly recommended" - The One
"Simply the best - and will be for a long while yet." 94% overall - C&VG
"Best overhead racing game on the market and a must for all racing fans." 92% overall - Sinclair User Classic
"A great game full of road wrecking fun." 90% overall - A Crash Smash
GAMES
THE ARCADE SMASH!
CONVERTED BY
GRAFTGOLD
Creative Software

TARGET RENEGADE

Hit Squad ● £2.99 cass joystick/keys

Revenge is sweet. Violence is golden. Pain is painful. You'll need to learn these three rules if you're gonna survive out on the mean streets of Scumville. *Target Renegade* makes no apologies about plonking you in this rather unpleasant town. And it's out and out warfare there. Your mission is to avenge the memory of your brother. He got severely stomped in the original *Renegade*, and now you're after Mr Big, who picked the fight in the first place.

The first of the five levels is set in a multi-storey car-park, where a motorcycle gang, who happen to be passing, try to beat you into your constituent molecules. You'll have to knock them off their Harleys, then fend them off with your punches, kicks and leaps. If you survive



● Three thugs have floored you. Get up sharpish!

for long enough, one of the enemy will attack you with a sledge-hammer. Kick his face in and nick the hammer. This gives you an undeniable advantage, despite the incredible thickness of the bikers' skulls.

If you make it to the lift, you can get to Level Two. This is quaintly named 'Seedy Street at Night'. There are several gaudily-dressed women around. What they want is anyone's guess. However, they seem to take an instant dislike to you, and frail and fragile fairer sex that they may be, they try and kick out your lungs.

So the violence continues. If you're still playing this far, you'll be better at it, and the folk you encounter will have their bones pulverised before they can say 'flick-knife'.

Level Three sees you in the Park. You might



● Ha! Got all three! I'm a real 'ard case, me!



● The biker's about to splat you into ketchup. Turn and kick 'im!

think that a park is a pleasant haven of peaceful gentility. Not in Scumsville. As you relax by the pond, watching the children playing in the sand-pit, you casually make the acquaintance of a large number of milling skinheads. They take umbrage at something you say or do, and subsequently attempt to damage your face and body severely. Where are those Turtles when you really need them?

Next, you shamble, bleeding and broken, into a Shopping Mall littered with Beastie Boys fans and their hungry Rottweilers. When they notice you they proceed to turn your head into etc... etc...

After this light relief you'll be exactly in the mood to confront Mr Big, King of the Scallywags, in his own bar. His bodyguards attempt to pull your... etc, and rip off your... etc, and... etc you with a machine gun. Do not try to reason with them.

Target Renegade appeared as a full-price game in *AA35* and scored a Mastergame. It still looks great today. It's got bags of playability, and the graphics are fab, being big, clear and well animated. You have several violent moves available to dispatch your foes, and they all look good on screen.

Sound is fine too. A tune plays continually, rather like Beethoven's Ninth during the violent scenes in *A Clockwork Orange*. If you prefer, you can turn off the sound and just listen to

SECOND OPINION

"Target Renegade is a gratuitously violent game. Mindless thuggery is fun, though, and results in an extremely entertaining game, especially with two players." **AW**

the beeps that accompany the thumping.

Perhaps one of the best features in *Target Renegade* is the option to have a friend or relative join you in the senseless wasting of human life. The two-player mode puts both you and said friend on screen at the same time. So you can work as a team, doubling your effectiveness. It is excellent fun as you both lay into an immobilised, unconscious skinhead. You're not likely to be doing something like that in real life, let's face it.

The game isn't easy, either. Against one, or possibly two adversaries you should be able to come out on top. But when four or more pile on, one on a motorbike, you'll need luck and your wits. You'll also need a friend who's equally adept at using boots, fists and any large tools scrounged from nearby building sites.

A time limit keeps you moving through the levels. You must wipe out all the baddies on each level before you can proceed to the next. So whilst it is possible to evade the approaching squads of meatheads, it's not really in your best interests to do so.

Overall, *Target Renegade* has stood the test of time very well. It really is an excellent game. You will need to enjoy inflicting and receiving extreme physical trauma, though. It can get repetitive, but there are so many levels and characters that this isn't a major factor.

If you aren't put off, and ethics matter little, then this is the budget punch-em-up for you.

James 'Did you spill my pint?' Leach



● The geezer with the sledgehammer done me over!

FIRST DAY TARGET SCORE

Escape the multi-storey car park alive

The Verdict

GRAPHICS ... 72%
- ☐ Well-animated characters.
- ☐ Slick and very presentable.

SONICS ... 66%
- ☐ Slick and very presentable.
- ■ FX not so hot.

GRAB FACTOR ... 87%
- ☐ Great fun and easy to get into.
- ☐ And even better with two players.

STAYING POWER ... 73%
- ☐ Five levels.
- ■ But action is very similar in each.

AA RATING 76%

- ☐ Fun, playable and none too taxing on the old grey cells...

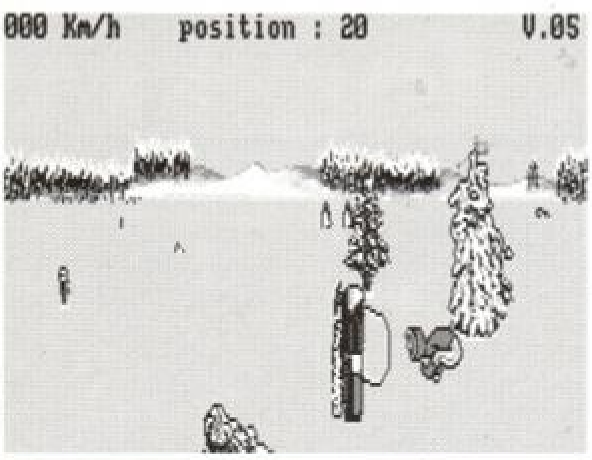
HARRICANA

Loriciel ● £9.99 cass, £14.99 disk joystick/keys

The sport of racing comes in many forms. Whether it's on foot, on horseback, or on a motor vehicle. People will take the chance to prove that they can run, ride or drive faster than everybody else. Even in Canada. (*Er, pardon...? – ed.*)

The problem with Canada is that it's a bloody cold country. Suggest a 26-mile jog though the sub-zero temperatures, and you'll be locked up as a loony. And since bareback Yak racing hasn't yet caught on, some sort of motor-sport is the only choice left.

Cars would be a silly idea. For one thing, as well as 'dry' tyres and 'wet' tyres you'd have to have 'snow' tyres too. You'd probably need gallons of antifreeze as well.



● Damn, damn, and double damn!

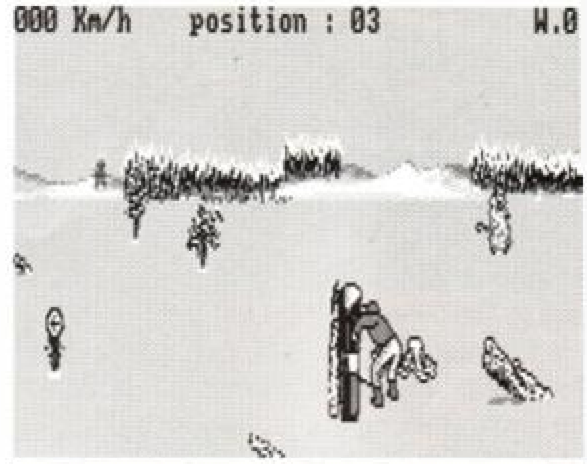
So what they do in such snowy regions is race snowmobiles. These are far more suited to such colder climes, using skis and caterpillar tracks to keep a grip on the slippery surfaces, rather than four wheels which slide all over the place.

Harricana takes place in the frozen wastes of Canada. Twenty competitors battle it out in a race where man and machine are one, and need to work in perfect harmony to survive the gruelling journey.

> **SECOND OPINION**
> ***"It's quite simple to look at, without much variety in the gameplay, but I loved it. It's atmospheric, humorous and very playable. The control is rather frustrating now and then, but overall, a great little game."*** **RL**

The race is split into several stages. There are twelve in all, and in each the last competitor to complete the course is disqualified. Out of the twenty who start out, only nine will survive to attempt to win the final leg of the race.

There are two choices when it comes to the challenge. You can either keep to the course, or you could opt for the cross-country route. The latter option is unusual to say the least, as most racing games refuse to let you stray too far from the road. With *Harricana*, though, off-road racing i no problem – except that the terrain is fille with trees, fallen logs, and all manner c debris.



● There's no time to lose! Get back in and get going.

Your buggy is much faster than those c any of the competitors. You can burn them o no problem from the very start, the probler lies in keeping on course. The computer-con trolled contestants can do this effortlessly, bu it's not so easy for the human player, wh doesn't know the lay of the land quite so well The course markers are tiny. It's just far to easy to drift off course into the countryside an get lost before you know it.

The other danger is crashing. This is some thing that the automatic competitors never do It's a pity that the same cannot be said of thei human counterpart. The most annoying part i that when you do crash, you have to revers slowly away from the obstacle, and turn befor

MOON BLASTER



Loriciel ● £9.99 cass, £14.99 disk ● joystick/keys

Life in the Three Moons galactic system gets pretty boring. There is just nothing for the young folk to do. So, to combat this apathy, and to keep them out of trouble, the Queen has decreed that every year there is to be a competition.

Called the Olympic Crater Games, there are only ever two teams competing. One team is the Cyruls. These are unpleasant, drooling, malevolent beings who will stop at nothing to win.



● The spooky space-age main menu.

The other team is you. On your own.

Over the years, the Games have assumed greater and greater importance. Nowadays, they're used to decide the allocation of the entire next years' planetary revenue. The Cyruls won last year, and they plundered the wealth of the Three Moons system to an embarrassing degree – greedy amphibians. So the royal pressure is really on for you to win this year.

You are wheeled out to a crater in the middle of nowhere, and left there. You are in a small skimming spacecraft type thing, armed only with a laser blaster. The Cyruls outnumber you by dozens to one. Their task is to manoeuvre round you, trying to collide with your little craft. You must use your speed, steering and laser to avoid these reprehensible reptiles. A radar screen on your instrument panel indicates the positions of all the alien weirdoes surrounding you. Other readouts tell you your speed and the state of your shields.

You are attacked by waves of craft. If you destroy or avoid them all, you get a chance to pick up bonus points. There's a brief respite (about 1.7 seconds), then the next slimy lot attack. Each wave has a different attack craft, and each craft is better than the previous one. You usually end up reversing as fast as you can, and spraying the enemy as they try to keep up. Every so often you collect a useful weapon such as a faster laser, or a bomb. This evens things up for a while.

The Games take place on all three moons. There's the Desert Moon, the Forest Moon and the Icy Moon. Coincidentally, each has a crater which lends itself admirably to this sport. The progression of aliens on each moon is different, and skill level varies between moons too.

> **SECOND OPINION**
> ***"About as much fun as it's possible to have watching variously-coloured polygons whacking around in a playing area the size of a letterbox. Which is to say, not much. Mindless blasting which goes on and on and on, with no variety. I didn't like it."*** **RL**

Kill all the squadrons of horrid nasties and an exit appears somewhere in the crater. Head out, unclench your fingers from the joystick, and move on to the next moon. Phew!

The game has been designed along the same lines as Sherman M4 (reviewed on page 66). It uses a similar 3D technique, but, happily, is much, much faster. You whizz across the crater at breakneck speed, and the nauseating alien craft richochet around like shrapnel. They don't fire lasers; they simply try to hit

continuing. This is a slow process, and seems to take an eternity. Of course, while you're performing this delicate manoeuvre, all the other vehicles have overtaken you and are well away.

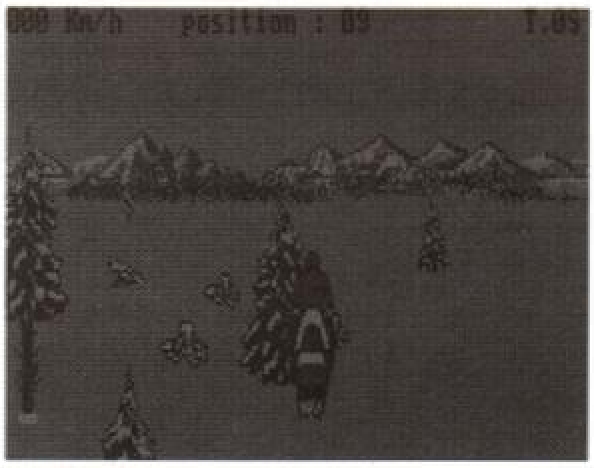
In real life, a 60mph smash into a stationary tree would probably result in hospital, so it could be said that the slow recovery is getting off lightly. However, it does break up the action in what is otherwise a fast and extremely playable game.

The graphics are drawn in the Amstrad's four-colour mode. The definition is very high and there's a very atmospheric feel throughout the game. There are many humourous touches, too. The other competitors wear a variety of headgear, for example, while the crash sequences are wonderfully animated. A lot of work has gone into polishing this game.

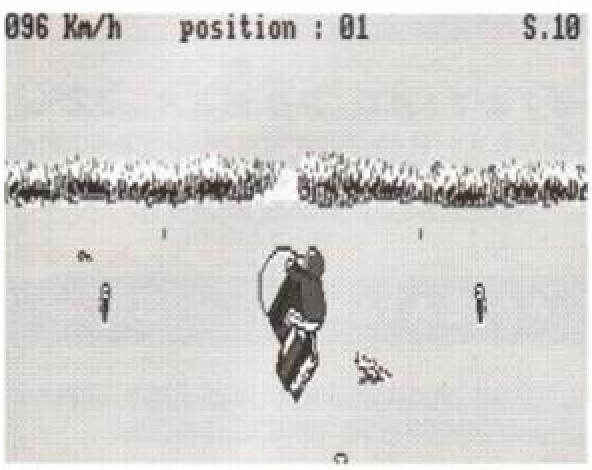
Technically, *Harricana* is a fine game. The scrolling and speed are excellent, better than most racing games of this type. The problems of not being able to compete properly and fairly against the computer spoils it, though.

Time should teach you to master the controls. And if you can gain the ability to judge the twists and turns of the course with split second accuracy, then *Harricana* could prove to be quite a game. If not, then you'll soon become rather frustrated by the whole thing.

Adam Waring



● Look out for the trees. There's lots of them!



● Hang on for dear life when you go over things.



● Whoops! Looks like we're going to take a tumble!

FIRST DAY TARGET SCORE

Win your first race

The Verdict

GRAPHICS 87%

- ☐ Crisp, clear graphics.
- ☐ Nice animation.

SONICS 55%

- ☐ Nice title music.
- ■ Effects limited to engine noises.

GRAB FACTOR 70%

- ☐ Easy controls and breath-taking speed.
- ■ Too hard to stay on course.

STAYING POWER ... 77%

- ☐ There are a lot of stages to race...
- ■ ...if you're patient enough to master the game.

AA RATING 73%

- ☐ Potentially excellent game spoiled by playability quirks.

---

you.

The graphics are fast. They work well, are solid, and move as smoothly as anything that quick can. Some of the later Cyrul craft are quite detailed, but still update rapidly. Your joystick skills will certainly be tested (almost to destruction), and your nerves will soon be shredded.

The sound is continuous. There is a variable engine note which serves to inform you of your speed, plus laser noises and explosion effects as the Cyruls cop it from blasts of your gun, or slam into you. Cool, space-aged tunes play during the high score table and at the intro screen. Both these screens can be called up from the main menu.

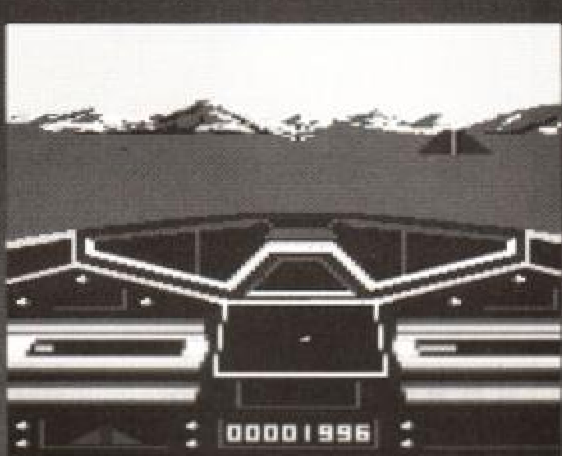
If you can't progress to the second or third moon during the Games, you can try them out using a training mode which dumps you on the rocky satellite of your choice. Useful for seeing what you'll face later (assuming you survive that long).

Moon Blaster, for all its polished speed, feels curiously out-of-date. It seems quite a while since a game required you to move around, unthinkingly blasting at noxious aliens, trying to kill as many as possible. It's basically a speeded-up *Battlezone*.

Your reactions will be honed, your trigger finger strained, and your brain unused. If that is what you want from a game, then hot-foot it out to the crater, and start killing.

James 'Ganymede' Leach





● Ice-moon above, desert-moon below. Open fire!





● The forest moon. Ha! Eat plasma, sucker!

FIRST DAY TARGET SCORE

Survive two squadrons on moon one

The Verdict

GRAPHICS 75%

- ☐ Big, fast, colourful 3D.

SONICS 72%

- ☐ Fills the air with lasers and explosions.

GRAB FACTOR 70%

- ■ Difficult. You'll need practice.

STAYING POWER ... 61%

- ■ Lots of blasting. Not much variety.

AA RATING 68%

- ☐ Pure arcade action.
- ■ Not for thinkers.

MOTORCYCLE 500

Cult ● £2.99 cass
keys only

Yes, it's text-only manager time again! If you're fed up with soccer teams, cricket clubs or boxers why not try and run two motorcycles at once? *Motorcycle 500* gives you this chance.

You must select a sponsor team, a type of motorcycle (such as Kawasaki, Yamaha or Suzuki) and a couple of riders. As with many management games, the details are as (or were at time of writing) very accurate. All the famous riders are featured as well as the bikes and sponsors (usually fag-makers like Marlboro). You can select Randy Mamola, Eddie Lawson or even Barry 'bionic' Sheene.


the bikes race past.

Your lads' skill ratings are displayed, as well as the condition of the two bikes. You have a certain amount of dosh to spend on the bikes, race fees and so on, so must balance the budget until you have reached an acceptable level of proficiency without going too far into the red. The bank is very strict about this.

Next you enter a race. You can choose to enter both your riders, or just one riding a far superior bike, with all your dough spent on it alone. Obviously each option has its merits. Watch the weather; it affects the choice of tyres. So, fill up with four-star (unleaded, of course), and go racing!

The race is over 20 laps. You get an update each lap, with details of crashes, overtakings and mechanical troubles. This is quite exciting, especially if the weather changes and people start tumbling all over the track.

> **SECOND OPINION**
> *"Better than most management sims because you actually get to see the bikes going past. Other than that, there's not much to stir the blood." RL*

Unfortunately, *Motorcycle 500* is too slow. Huge amounts of time pass with only the word 'Interlude' on the screen to keep you company. The races take an age, and you are almost powerless to change the linear format of the game. You just set up the bikes, wait for eons, race, wait for eons, and set up the bikes again afterwards. It tends to spoil the excitement.

There is no sound but there are very rudimentary graphics when the races are on. Unfortunately this isn't enough. The game is yoo pedestrian; there really aren't enough options and factors to make it interesting.

James '2-stroke' Leach

FIRST DAY TARGET SCORE

Race a whole season

The Verdict

GRAPHICS 38%
- ■ Small window with smaller motorcycles whizzing past.
- □ But many management games don't even go this far.

SONICS 00%
- ■ Akin to wearing incredibly effective ear-muffs

GRAB FACTOR 37%
- □ It could be a nice idea...

STAYING POWER...32%
- ■ But it's far too slow and lacks immediacy. One to play during long months in hospital with both your legs broken.

AA RATING 36%

- □ Treat this the same way Barry Sheene treats electro-magnets.

SOCCER DIRECTOR

GTi Software ● £2.99 cass
keys only

Money! That's the only thing that matters! Money and, perhaps, football. Football's quite important too. Just imagine how nice it would be if you could make money from football. Ideal!

> **SECOND OPINION**
> *"Yuk... another text-only soccer management sim. The thing is, you're even further removed from the game itself as you're cast in the role of a wheeler-dealer director out to make a fast buck. Dull or what?" RL*

Soccer Directors must think they've died and gone to heaven. Lots of football, lots of money, lots of gold jewellery and poisonous cigars, big cars and swimming pools. On second thoughts, you can keep it.

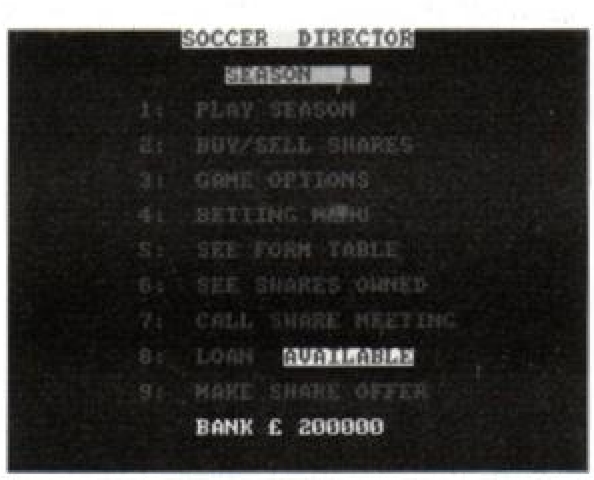
This game puts you in the position of being able to buy shares illegally in Britain's top clubs. The aim to to own 501 or more shares in all the First Division clubs, thus making you King of Football, and immensely wealthy. The shares are so expensive that you'll need to wait for your dividends to start coming in before you can buy many. This is the problem. The money slowly rolls in from your investments; it's quickly spent, rolls in again lethargically, and the cycle repeats.

Other factors have a marginal effect on this tedious process. The performance of the team, or whether a riot or (God forbid) tax evasion occurs, all take their toll on your accumulating dosh. You can also affect the teams by calling a shareholders' meeting. If you have enough weight, you'll get the manager sacked, the ground improved and so on. If you set up a particular team just right, you can bet on them in the League or FA Cup. It's another way of raking in moolah.

Sadly, nothing you do seems to make much difference to the game. The money still comes in, and eventually you'll have enough to buy all the clubs. You might as well go and make a pot of tea and come back to the game every half an hour to check on its progress.

No graphics, no interesting typeface, no sound. At least there are a couple of colour changes. But this isn't enough to make the game playable, even by the most enthusiastic management-sim fan. It's even worse than watching Luton at home.

James 'Swindon Town fan' Leach



● All the delights of crooked share dealing await...

FIRST DAY TARGET SCORE

Drink four cups of tea and eat seven Custard Creams whilst it's running

The Verdict

GRAPHICS 05%
- □ Some of the words are different colours.

SONICS 00%
- ■ No sounds at all. (You could crunch the biscuits loudly).

GRAB FACTOR 36%
- □ It certainly is a novel idea.

STAYING POWER...27%
- ■ Sheer dogged persistence might keep you at it.

AA RATING 32%

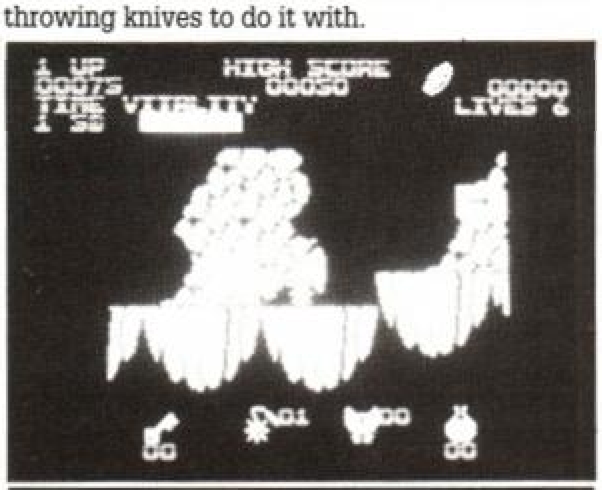
- ■ It's definitely original, but sadly isn't very playable.

PLATINUM

US Gold ● £9.99 cass, £14.99 disk joystick/keys

BLACK TIGER

Uh oh! This looks suspiciously like Speccy-port time. *Black Tiger* is a platform beat-em-up, pitting you against all sorts of unpleasant characters. It transpires that three evil dragons have brought a nightmare of destruction to a peaceful kingdom. Sounds quite good fun, actually. Anyway, you, as *Black Tiger*, have decided to stop these boorish reptiles from having their fun. You must travel through many stages and across many platforms until you confront them. And you're armed with a mace and lots of throwing knives to do it with.



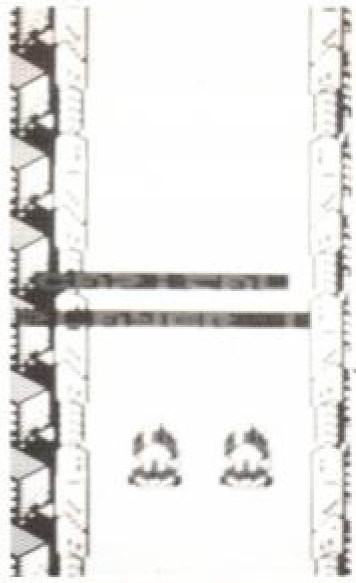
● Leap from level to level, following the arrows.

There are lesser dragons, skeletons, blockheads and a man-eating plant called Audrey all trying to kill you. Luckily there are also Old Men who you liberate from the clutches of the dragons. They, in their gratitude, give you better weapons and armour.

Unfortunately, *Black Tiger* looks confusing, appears in only one colour and sounds uninteresting. Character control is not good, and the whole game is unsatisfying. It's not a tiger, it's a bit of a dog, actually.

LED STORM

Oh, the smell of the open road! (*eh? – ed*). *LED Storm* lets you star in your very own road-movie. You must drive as quickly as possible along a top-to-bottom scrolling screen, whilst avoiding all other road users. Your vehicle isn't armed, but you do have the ability to jump over (and on to) your opponents. If you land on them, they blow up and you accrue points.



● Whizz past slow-coaches.

Other objects in the road include tins of fuel, oil and other useful automotive products. Occasionally, the road forks, and you have to make a decision as to where to head next. You have an on-board computer which you may consult, but Mac (as he likes to be known) won't offer too much constructive advice. Your aim is to reach various cities. After each city, you drive off along a different coloured road.

Graphics and sound are not impressive; once more, they're looking old. Sadly, there also isn't that much to do in the game. The driving sequences do get monotonous, and the lack of offensive weapons is a frustration.

FORGOTTEN WORLDS

Eurgghh! Lizards have taken over! Get them off me!

Yes, you, Mr Ultracool, must save the world from these repulsive reptiles. You have a jet-pack and a rather weedy laser, and the lizards are just asking to be blown away. You gently scroll from right to left, blasting the geeks as you go. Get far enough and a small newsagents appears. Take a break, go inside and stock up on extra lives, weaponry, cigarettes and confectionery (well weapons and lives, certainly). You'll also find information on how to kill each end-of-level god in the papers you can also purchase in the shop.

Graphics are great. The sprites are fast, even if they are small. The sound is also good. It fills the air with shooting sounds; what more do you need? It's a wonderful shoot-em-up.

James 'forgotten ninja ghost' Leach

GHOULS AND GHOSTS

Arthur is back. He starred in US Gold's *Ghosts 'n' Goblins*, and he starred in *Ghouls and Ghosts*, which has surfaced here once more. This time Old Artie must negotiate a horizontally-scrolling landscape which continually disgorges rather unpleasant dead folk. Other hazards include vultures which swoop down and attack you, strange plants which spit and guillotines which, er, chop.

There are five levels to overcome. You must make your precarious way to a forbidding castle. Once you get there, you'll need to do a lot of ladder-climbing, pit-jumping and baddie-killing. There are many items of weaponry for you to collect, and many points to accrue.

Graphics are good, but are starting to look little dated now. The sprites do move nicely, though. The sound effects, too, are starting to show their age. Spot effects are OK however, and some nice tunes are played as well.

Overall, it wasn't particularly brilliant when it first came out. And it doesn't look any better now. Especially on the *AA* office's 6128 Plus, where we couldn't get the keyboard to respond once the game had loaded. Some compatibility glitch, perhaps?



● Leap from level to level, following the arrows.

STRIDER

Strider (you) has one out-of-date theme! He must infiltrate the Russian Army and return to the West with all their nasty, sordid secrets. The KGB will, of course, fight you every inch of the way. If you get past them, you'll battle your way through to the icy Siberian wastes, then to the Soviet jungles (?), and then back to Moscow. There, you'll be met by the Grand Master of the Supreme Command of the Upper Echelons of the Red Army. Bash his head in, and nip back to warmth and civilisation.

Whatever happened to glasnost and perestroika?



● A large, posturing Russian attacks.

The game is easy enough to start with. You find yourself with superhuman acrobatic powers, so can out-run, out-jump and out-shoot anybody foolish enough to try and hinder your progress. But as you get further, things change. There's a large ring-worm which will cause many a tear-stained face as it repeatedly ends your game prematurely.

However, if you persevere, you'll realise that by skilful fighting, and judicious running away, you can get past everything.

The graphics and sound are great. Interesting colours, big sprites and fine music all make *Strider* a Rave.

The Verdict

Ghouls 'n' Ghosts	AA52	49%
Strider	AA49	80%
Forgotten Worlds	AA46	80%
Black Tiger	Not reviewed	42%
LED Storm	Not reviewed	45%

AA RATING 72%

☐ All a bit patchy, really. *Ghouls 'n' Ghosts*, *Strider* and *Forgotten Worlds* are all worth a go, but the other two less so.

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● It's all action in the goalmouth.

KICK OFF II

Anco ● £9.99 cass, £14.99 disk joystick/keys

'Ere we go, 'ere we go, 'ere we go! The passion of the World Cup lives on in the football sim. A game format with the advantage that you don't even have to go outside and get muddy playing it. Footie games were in abundance last summer, when the World Cup was in full swing. So is Anco too late with the release of *Kick Off II*, or has it scored a last-minute goal?



Kick Off II is the follow up to *Kick Off*, a game released just six short months ago on the Amstrad. The new version promised to add many new features to the game, without losing the excellent playability of the original.

There are plenty of options on the screen to choose from. The best thing to do is ignore them – at least for the first few goes – while you get used to the system and how to play the game.



On pitch you have a bird's-eye view of the action. The whistle goes, and they're off! The action is fast and furious. The ball is always central to the action, and the screen scrolls rapidly to accommodate it. The player currently under your control is marked with a white line that follows him around. When control switches to another of your team, the line jumps to that player.

SECOND OPINION

"Kick Off on the 16-bits was a truly excellent game, so KOI, when it appeared on the Amstrad, was a bit of a disappointment. Anco has put right the graphics with II, though, and produced a fast, playable and fun footie game to rank with the best." RL

You control to the player nearest the ball. The control remains with that same player for a while, but after a time switches to the nearest on your team once again. This system works well most of the time, but it can be annoying when there's a player just millimetres from the ball which you are unable to take control of.

All the rules of our national sport are included in the game – with the possible exception of the goal-robbing offside rule. Corners, throw-ins, free kicks and penalties are all there, as are substitutions and fouls.

After you've recovered from your first few beatings, it's time to browse through the options. You can chose to play single matches, international friendlies (which is the same as a single match, just with big team names), a league, or the cup. The league and cup matches each place eight teams against each other in the different types of competition. The results can be saved for continuation later.



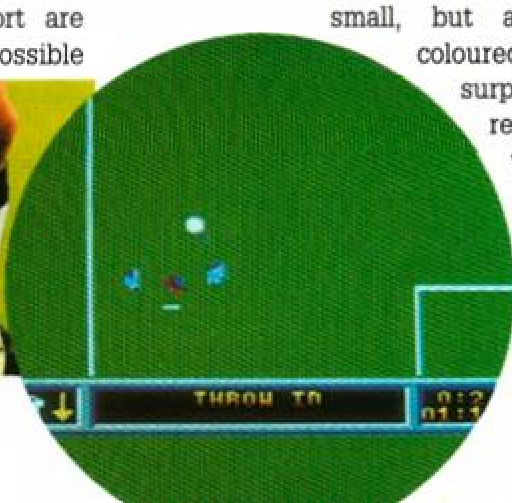
● 9-0 down, and 40 seconds left. There's hope yet...

There are plenty of variables to be adjusted: four types of playing surface, five skill levels, four wind strengths, and a number of options that can be switched on or off.

Another feature that sets *Kick Off II* apart from the crowd is the individual players' statistics. Each player has a number of attributes that affect the way he plays – even though you're in control whenever he has the ball. For instance, a slow player will be easily caught, and you'll need to make sure that you pass before it's too late!

The greatest criticism of *Kick Off I* was the dismal graphics. Ported directly across from the Spectrum, and using a dire choice of colours, the game just about scraped a measly 13%. Thankfully, great improvements have been made in *KOII*. The graphics are designed for the Amstrad, and while they don't exactly set new standards, they look a hell of a lot better than they did. The players are still quite small, but are now multi-coloured. The pitch – not surprisingly, really – remains green, with white markings.





The two teams are always red and blue, despite the country that they hail from. Curiously, the red team's goalie is also in blue – though the blue's keeper retains the true team colours. This can confuse things when the action reaches the goal area.



● Kick off! The whistle's gone, the action begins...



There's no tune, and the fx are limited to whistles and bouncy-ball sounds. In fact the bouncing ball gets irritating as it's constantly happening, and you soon feel that it'd be better if there were no sound effects at all!

Kick Off II is simply the most playable footie game to date. While it's still not as polished as other soccer games, it represents a big improvement over the original version. If you somehow managed to miss out on buying a soccer sim over the summer, then it's not too late. If you did, then it's worth considering anyway!

Adam Waring

FIRST DAY TARGET SCORE

Beat the computer at its own game!

The Verdict

GRAPHICS 67%
- ☐ Huge improvement over the original.
- ■ Still not state-of-the-art.

SONICS 24%
- ☐ Spot effects which are more annoying than anything.

GRAB FACTOR 79%
- ☐ Control is easy to pick up, but there's much to master.
- ■ The computer will thrash you at first.

STAYING POWER ... 90%
- ☐ Two-player mode keeps you coming back.
- ☐ Lots of options, and plenty of control subtleties.

AA RATING 86%
- ☐ All the playability you could ask for in a soccer sim.

SNOWSTRIKE

US Gold ● £10.99 cass, £14.99 disk joystick/keys

Cocaine! – the Devil's dandruff. By 1998 supplies of this drug were reaching epic proportions in the United States. The US Government had to act. The President decided that military intervention was the only course of action. (Where have we heard that before?).

You are a Top Gun pilot based on the USS Epyx. Your war-machine is the F-14 LCB Cosmos. It looks very much like the F-14 Tomcat, but is more advanced. It'll need to be. There are squadrons of the latest MiG fighters loitering just outside radar range. These carry both radar and heat-seeking missiles.

You log into the program using your name. You will be able to save and load your mission statistics using this and your self-designated call-sign (à la Tom Cruise). There are ten missions to choose from – you can attack an enemy carrier, taking off from your own flat-top, you can destroy drugs factories or warehouses, drug-carrying cargo ships or even cocaine refineries. Five of the missions are land-based and five start from the carrier.

There are skill levels ranging from Beginner to Expert. These regulate the amount of enemy activity you'll encounter on your missions. Even on the easiest level, though, you'll have to spurn the unwanted attentions of a fair quantity of top-of-the-range Soviet hardware.

If you survive the air-to-air combat, you'll have to navigate your way to the target. Stay low and find it on your combat radar, then scorch in over it, firing air-to-surface missiles. These lock on automatically and hit the target wherever you may subsequently point your aircraft. Very useful if you are under attack from the SAMs that defend these sites.

Jinking around the sky chasing enemy aircraft, whilst their missiles chase you, can get rather hectic. Luckily you have a back-seater. This is the guy who sits in the seat behind you (*yeah, thanks – ed*), warns you of incoming hostiles and gives you damage reports. He'll tell you which counter-measures to employ against enemy missiles; chaff against rada[r] missiles and flares (yes, they're fashionable i[n] the US Navy!) against infra-red guided mis[-]siles.



● Your radar map, and the position of friendly bases.



● You can select a backseater from a choice of six.

In theory, the calibre of this dude is vita[l]. That's why you get to choose him from a men[u] of six aircrew to join you in your vital missio[n]. You can call up a picture of each man, and [a] summary of his character and skill. None i[s] perfect, and one or two have serious characte[r] defects, which makes you wonder why yo[u] should trust them with your life during comba[t].

But in reality all the men seem to provid[e] you with the necessary warnings and data. Some are just ruder than others. One fellow i[s] downright offensive. The comments made b[y] the guys behind appear in a small text box o[n] the instrument panel. This is also where they'[ll] tell you off for firing too many missiles, o[r] using the wrong Electronic Counter-Measures.

Flying a land-based mission gives you th[e] option to touch down at two friendly bases. This is useful if you've taken damage and don'[t] think you'll get all the way home.

You have a radar scope which indicates th[e] positions of all bases and enemy sites. Thi[s] screen automatically switches to combat mod[e] when there are enemy aircraft present. Somewhat annoyingly, it presents the position[s] of bases and enemies relative to north, rathe[r] than relative to your heading. This means tha[t] if something is directly above you on th[e] scope, you aren't necessarily flying towards it, rather that it's to the north of you. Once yo[u] have mastered this system, it works OK, an[d] also incorporates a useful 'zoom in' option t[o] enable you to line up accurately on bombin[g] runs.

Another useful feature is the ability to vie[w] the progress of your mission from the contr[ol] room back at the base (or carrier). You can ca[ll] up a combat report, global view or weathe[r]


● You can also fly from the USS Epyx, seen here.

FIG 1 F-14

The Tomcat is arguably the best fighter in the US Navy. It travels at over twice the speed of sound, and can destroy six airborne targets simultaneously at a range of over 100 miles.





FIG 1 MIG 25

The MiG 25 Foxbat is the Russian equivalent of the F-15 Eagle – cousin of the Tomcat. Interestingly, the *Snowstrike* box bears a picture of an F-15, not a Tomcat. Jolly bad show, chaps...







● Flying along quite peacefully when suddenly...



● A MiG attacks from nowhere. There he is!



● Fire a missile and... got him. There's the explosion.

update. You'll also view the back of some bloke's head. This might possibly appeal to F14-flying hairdressers. The action is temporarily halted while you examine aspects of the mission, and resumes when you have finished.

US Gold is billing *Snowstrike* as a flying game rather than a flight simulator. The controls are similar to those of an aircraft, but there really is no airmanship required and, as long you don't fly into the ground or get shot

SECOND OPINION

"A good mix of simulation and arcade. Good fun to play without getting too heavy. Ultimately, though, you do get the feeling that all the missions are rather similar..." AW

up, you should have no trouble. Taking off is just a case of applying power and retracting the gear. Landing is slightly harder, as you must approach the airbase at the right height and speed. The carrier, to, must be treated with care. There isn't much room for error.

Unfortunately the ten missions are all very similar. Basically, you must take off, fly to a target on the ground (or sea), and destroy it with ASMs. You will encounter enemy aircraft, which always appear head-on. These are easy to destroy with your AAMs. Once you have used up all twelve pairs of missiles, you must utilise the M61 Vulcan cannon. This has enough ammo for 60 bursts. Each burst is capable of taking out an aircraft, and is also the best way of dealing with incoming missiles. Forget chaff and flares, just swing round and hit them with a burst of 20mm fire.

Having dealt with the narcotic-related targets, you head for your base (or carrier). You'll still be under attack from aggrieved, drug-using MiG pilots, though. Down a few more, and plonk your battered Tomcat, er, LCB Cosmos on the deck. Time for a swift run-through of the mission, a tot-up of the points scored, and off for the next strike.

If you run into severe trouble, you can always eject. This sees you drifting down with a comprehensive Instrument Packet strapped to your chest. You must pull the rip cord, steer yourself towards the nearest friendly thing, and wait. Eventually you'll thump down to earth, knackered, but alive.

The speed of the graphics is impressive. Clouds scud across your view with astonishing rapidity, and the ground features hardly dawdle either, despite the fact that some, such as the carriers, are very detailed. The MiGs are only ever seen from the front, though, thus spoiling the 3D-sim atmosphere somewhat. Combat is limited to moving left or right, then firing. Ground targets are usually big and simple, but have definite 3D properties, so look better. They absorb a lot of damage before exploding, so line up early and keep launching ASMs at them.

There is no in-flight engine sound. Missiles make a noise when launched, and warning tones sound when the enemy are in the vicinity. Otherwise, silence prevails. Many of the other sections, such as the 'funeral screen' and intro screen have appropriate music, though.

There are a lot of differing sections in *Snowstrike*, but the game itself is limited – each mission is so similar to the previous one. And the combat isn't tense cat-and-mouse stuff but simple bank-round-and-destroy.

Overall, *Snowstrike* lacks atmosphere. The static screens are great and the sprites fine, if sometimes a bit small. The sound isn't special, though, and really the game's speed is its single most impressive feature.

James 'Iceman' Leach

SNOWSTRIKE MISSION REPORT



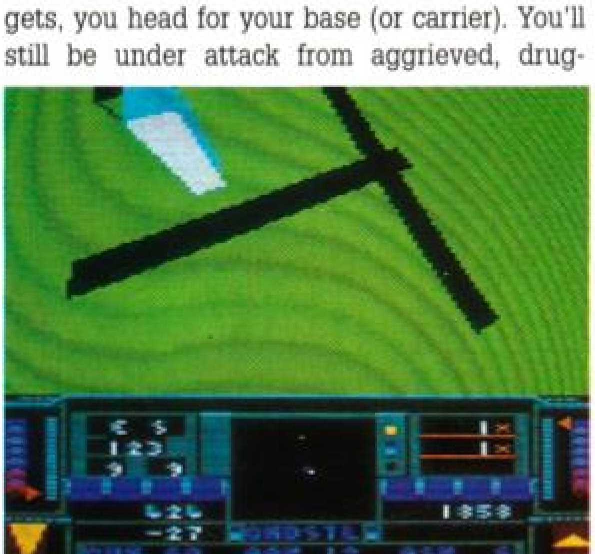
0900 We (Lt James Leach and Radio Intercept Officer Brad Smarg) take off from USS Epyx, and head 045 degrees for Colombian coast.

0923 A couple of bogies bounce past, spraying us as they go. We call bandits, buster, and bunt through to Mach 2. We fox-2 one of the lizar an AMRAAM and splash the other with the 20 mm M61 Vulcan.

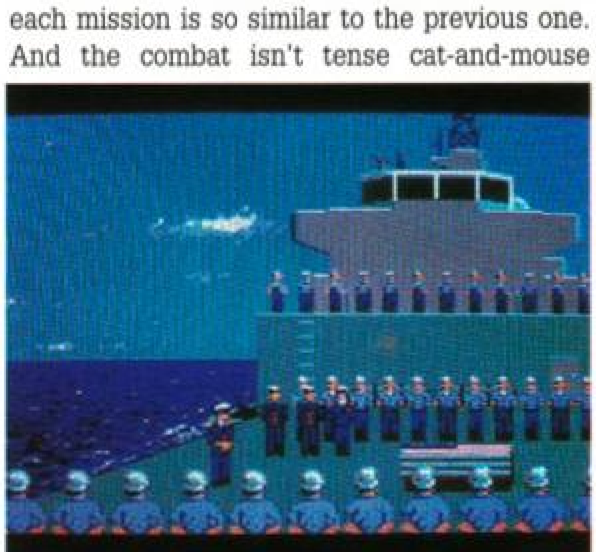
0925 Flying nap-of-the-Earth, we IP the target. Before we can attack, we're eyet by another Flanker. It fires, we drop our flares and roll over. The manoeuv works. We do an Immelman and give the Sukhoi a 'Winder right up the tai

0933 We viz the target, switch to ASMs and achieve a lock on. A SAM blasts up towards us, so we release chaff. We fire the ASMs, hitting the cocaine ref six times. It explodes, and covers the Colombian countryside with snow.

0936 The RIO vectors us to the VOR and the DME situated on the INS tells us tl F-14 LCB's ETA is 0945. Bogies clear. We want to get home ASAP, so it's l on and off we go!



● Overflying your own air base.



● Don't worry if you die. You'll get a burial at sea.

FIRST DAY TARGET SCORE
Complete one mission on Beginner level

The Verdict

GRAPHICS **82%**
☐ You'll feel the need, the need for... etc.

SONICS **71%**
■ Not a great deal going on during the flight.

GRAB FACTOR **75%**
☐ Easy to get to grips with.

STAYING POWER .. **68%**
■ Missions are repetitive.

AA RATING 74%

☐ Have limited fun blowing up warehouses packed with icing sugar.

SHERMAN M4

Loriciel ● £9.99 cass, £14.99 disk joystick/keys



Let's face it. The Sherman M4 tank wasn't much good. The Second World War crews used to call them 'Ronsons', after the cigarette-lighters, because, as the advert of the time went, they "lit first time, every time". Fire was always the greatest fear of the tank crews. The M4 had much of its ammunition stored inside the main body, and the results were often infernal.

Also, the Sherman only had a 75mm main gun, and armour that would have trouble stopping a determined wood-pecker. However, it was quite fast and mechanically reliable. And there were lots of them. Swarms of British and American Shermans overwhelmed the superior German armour which, though bigger and better defended, was seriously disadvantaged in terms of numbers. Thus grew the legend that the Sherman was something special.

This game places you in command of up to four M4s. There are ten missions to complete. Five take place in Normandy during the landings, and five in the Ardennes. The long-range scenery differs with each setting. In Normandy you see some lovely coastal views, and in the Ardennes you see some, er, hills.



● You survey your platoon prior to moving off.
● Below right: The team comes under heavy fire .



Using an overall map of the playing area, you direct your tanks by cursor to their targets. These might be depots, bunkers, flags (representing strategic points) or villages. It's more fun to direct three of your tanks by map, and drive the fourth yourself. Inevitably, German armour will appear. Your Shermans will defend themselves, and might even win, but generally they're hopeless, and miss all the time. The Germans are marginally better. You usually have to sort everything out yourself by wading in with your gun blazing and taking out every enemy tank.



● A Sherman tank hiding behind a house

Unfortunately, combat is too easy. Your turret always points in the direction you are driving, and you can't change the elevation of the gun-barrel. But it makes no difference. Just align the target using left and right, and hit Fire. They are always destroyed with one shot.

The game is a little like *Battlezone* with Second World War tanks. There are buildings and trees around, but these aren't big enough to use as cover, and they can easily be blown apart. When there is more than one tank in your view, the screen updates slow dramatically, and moving and firing becomes agonisingly sluggish.

There are a wide range of modifying options; you can select unlimited ammo for your tank, instant reload and unlimited fuel. You can also set the experience and morale levels of the Germans. It doesn't make much difference; you'll still shell them to tiny bits as soon as they come within range. Your own shields can withstand quite a battering, despite the far superior 88mm German guns trained on them.

The graphics are good. You are, however, presented with a view through the drivers/gunners aperture. This is rather like peeping through a letterbox (the rest of the screen is black). But once you get used to the restricted view, you'll feel at home with it, and you'll get used to swinging the tank about to see what's going on around you.

The 3D perspectives work well, and the views of other tanks, gun emplacements and so on are nice, if simple. However, there are German Tigers, Jagdpanzers and Panzer 4s which are actually recognisable when seen fairly close-up during a battle (if you know what they look like in real life).

Sound is kept to a minimum. No engine noises, but great sounds of shells being fired and exploding with ferocious violence. This is very acceptable, since an engine drone would become annoying after a while.

The strategic element is spoiled by the game's simplicity. If you take no active part in the battles but simply order your tanks from place to place, the sides are fairly evenly matched. But as soon as you start commanding one o more of the tanks in combat you'll tip the balance strongly in your own favour.

Each game takes no more than a few minutes to play. Most of this is travelling in a convoy from place to place.

Watch out for one thing. To return to the game from map-mode you must hit ESC. But if you press ESC whilst in tank-view mode, you'll quit the game instantly. This is bound to catch out the unwary.

Overall, *Sherman M4* is a disappointment. It looks good, it's generally fast enough, and it promises a lot. But it is just too simple.

James 'sticky turret' Leach



● Enemy Tiger tank! Quick, turn to the left and fire.

SECOND OPINION

"Disappointing after a while because you're expecting some serious strategic gameplay. All you end up with, though, is just another shoot-em-up, and a sluggish one at that." **RL**

FIRST DAY TARGET SCORE

Destroy all the German armour

The Verdict

GRAPHICS **77%**
□ Nice, but seen through a letterbox slot.

SONICS **62%**
■ Explosions are great, but that's about it.

GRAB FACTOR **75%**
□ Very easy to pick up.

STAYING POWER ... **56%**
■ But too easy to win.

AA RATING **68%**

■ Like the motorway, M4 does get monotonous after a while.

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SIM CITY

Infogrames ● £9.95 cass, £14.95 disk

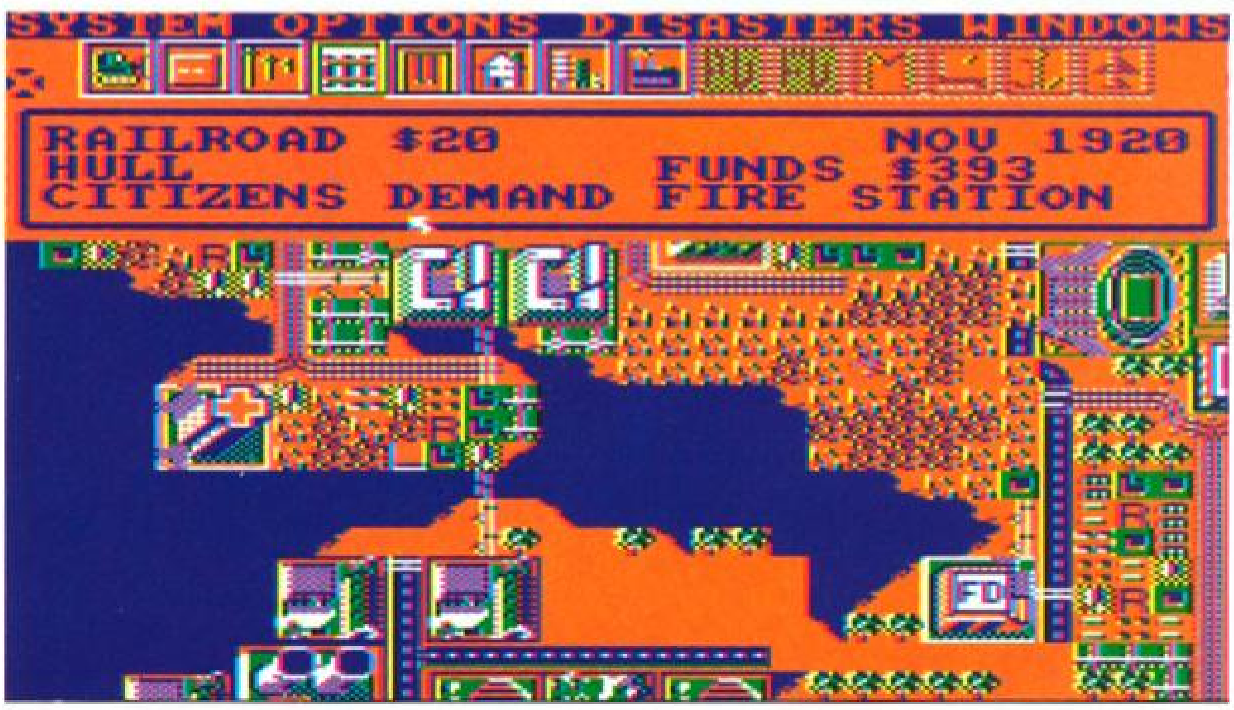


Five minutes is a long time in politics. About three years, to be precise – at least, that's the case when you're playing *Sim City*. It's exactly what it says it is – a city simulator. Now that may sound like a bit of a daft idea for a game, but just wait 'till you sit down to play it!

If you've ever felt annoyed about the local disco being turned into a bingo hall, or a car park being built in the middle of a local beauty spot, then now's your chance to prove how

There are three types of development that you can build. Residential blocks are where the people live. Commercial centres are where offices and shops are based. Industrial zones are where the factories go. As well as these basic social building blocks, you'll need to provide essential services to keep everything ticking over. Roads and public transport allow the citizens to get from A to B. Electricity is needed too, so power lines will need building. And, of ,you'll need a power station (coal or nuclear – the choice is yours) to put power into your national grid.

You can't just slap the whole lot down haphazardly, though. (Well, you can, but the population won't like it.) A successful city needs careful planning. You need enough factories to keep the residents in gainful employment, so



● Crickey! There's been an earthquake! The city has been razed to the ground. Oh well, that's life.



● Top line: These access sub-menus giving further options
● Icons: Bulldoze area, Road, Electricity cable, Railroad track, Parkland, Residenial area, Commercial area, Industrial area, Police Dept, Fire Dept, Sports Stadium, Power Station, Sea port, Airport
● Status panel: Cost of currently selected item. Today's date. Town name. Amount in the city's coffers. Messages.

you'd handle the situation. As the town's new mayor, there's pressure on you from all sides. You're well and truly in the hot seat.

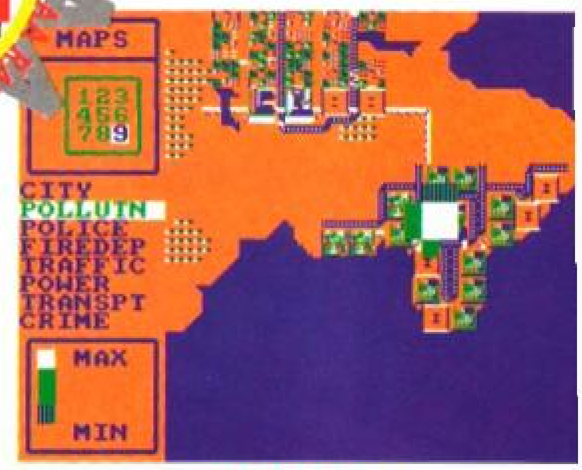
Mind you, in *Sim City* you're given almost god-like powers and (more importantly) a $20,000 budget with which to build and run your city. It's down to you to make all the decisions. Where to put the roads and buildings, at what level to set the taxes, and where to develop housing, commerce and industry.

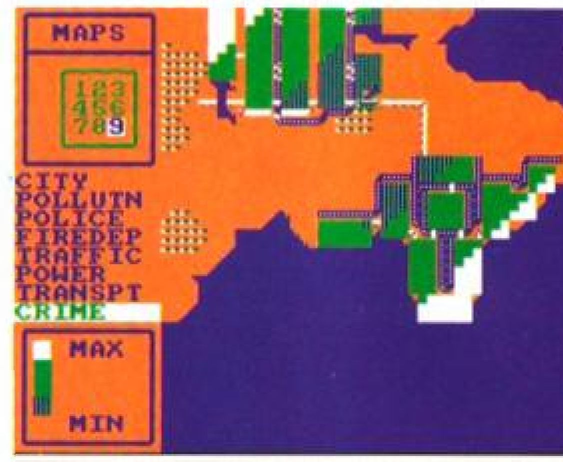
You start off, though, with a barren landscape. It consists of ground, forests, and water. Obviously you can't build anything in the water, and forests need to be knocked down before building can commence.

that they will support the commercial centres, which in turn ensure that industry can sell its goods. It's a very finely-balanced equation. Get it wrong and employment will soar, shops will shut, and factories will close.

You don't actually put up these buildings yourself, mind, you only designate what sites are to be used for. It's up to the people themselves to decide whether it's worth building or not! So if you do set aside an inappropriate plot for commerce, then no-one will move in and it will remain desolate and empty.

People like to live in nice places. Coastal areas are firm favourites, as are picturesque lake-side settings, and dwellings in forests.





● Crime is rising, pollution is growing. What a nice place to live!

Build a residential area next to a nuclear pow station or smelly factory, and it won't be a po ular place at all.

Basically, however, the nicer a place is live in, the more expensive it will be to liv there. The same applies to industry and con mercial enterprises – the better they're serve the more they'll be sought after. And the mo prestigious the area, the more you'll make i the way of taxes, as the people living (or wor ing) there will be rich.

Housing has to be provided for poor peopl too, though. If all the housing available is i the form of luxury apartments, people wi become disillusioned with the sky-high hous prices. Instead, you could make a few slums fc the scallies, next to factories and the like. Bu the ungrateful geeks will then complain abou pollution and things. You just can't win, 'ca you?

SECOND OPINION

"The graphics could be better – they're rather 'mushy' and poorly defined – but the gameplay itself is beyond reproach. It takes a while to get the hang of city politics, but once your settlement is started, the task of running it becomes incredibly absorbing." RL

First thing to do is give your town a name This will probably depend on your mood. Yo could name it after your home town, or eve call it Swindon.

Next select the level of play. The difficult determines how much dosh you get at th beginning of the game, and how fussy the pub lic are. The Easy level is indeed easy, and afte a couple of plays you'll go for Hard every time.

The landscapes the computer generates ar different for every game. And all the scenario



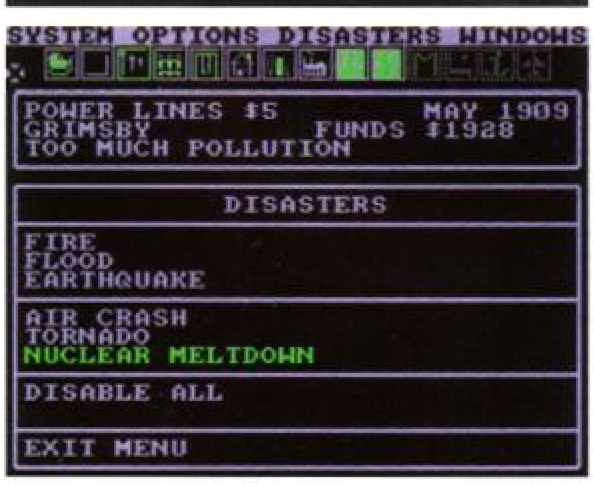
● Birth of a city. It's choked with pollution already. Great start!



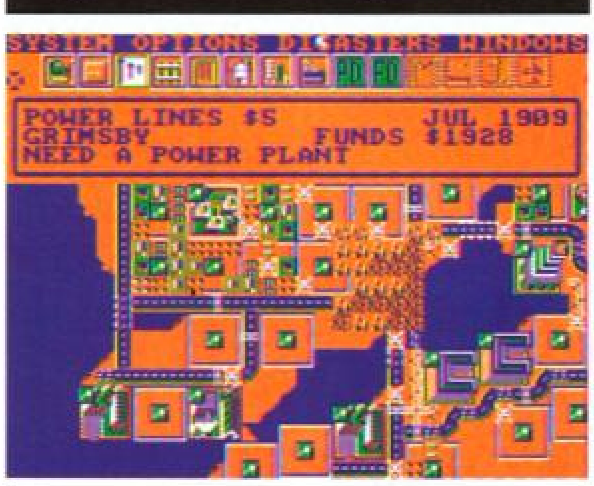
● There's a housing estate next to the nuclear power station. Great planning decision no. 46.



● Ah, not very popular, are we?



● Right, this'll teach 'em, the ungrateful little toads.



● Grimsby disapears under a nuclear cloud. About the best thing that could have happened to it really.

TOWN PLANNING TIPS

- Build railways instead of roads whenever possible, especially in residential areas. It's more expensive, but eliminates traffic problems and pollution.
- Everybody likes to be next to the sea or lakes. People like to live there, commercial enterprises like nice settings, and factories like somewhere to dump their chemical wastes.
- Keep industry away from the other zones. It's a vital part of the city's infrastructure, but nobody wants it on their doorstep. You may as well place your power stations here too – if there's going to be pollution, keep it in one place.
- There is a way to cheat, however it demands concentration otherwise it can backfire on you. The budget is set at the beginning of the year – however, it can be changed at any time. All the taxes are collected at the end of the last month. Set the tax rate to 0%. People will come flooding into the area, along with industry and commerce. When you reache December, though, select the budget option and push the tax rate as high as it will go – a massive 20%. As soon as next year comes round, reset the rate to 0% again.

take place on islands, so there is plenty of potential for coastal resorts. Inland, there's usually a good mix of forest and lakes, providing homely settings for your citizens.

Four pull-down menus sit at the top of the screen. These cover a number of functions, such as providing maps of pollution, crime and traffic problems, allowing budgets to be set, or – for the masochistic only – switching on disasters such as earthquakes. Directly below these options there's a selection of items that can be laid down onto the landscape. Residential areas, power lines and airports are among the building blocks available.

Next, there's a general status panel telling you how much dosh you've got, the date, and also informing you of the requirements of the townspeople. Messages, presumably from your advisers, tell you of problems that the city is facing.

The remaining portion of the screen is taken up with the playing area. Here is a large-scale map of the city at work. You actually see the buildings change as the sites are developed. Traffic jams are shown as a series of little blips on the roads, and miniature trains chug along the tracks.

Before you start to build your brand new city, you'll have to select some suitable building sites. To get your city up and running you'll need a power station with electricity cables, some kind of transport system, and of course somewhere for people to live and work. These are the basic requirements, and form the starting point for any city.

As your small village becomes a sprawling metropolis, you'll face more and more problems. The rising crime rate will need combating, for example, and sooner or later the citizens will demand an expensive sports stadium. To see just how popular your policies are, take a look at the evaluation option. It's usually quite depressing...

Control is via keyboard or joystick. You can get by using one or the other, but a combination of both is best. The numeric keypad serves as a set of 'hotkeys'. You can select most of the options just by tapping a key. And the cursor keys can be used to scroll the map around. This makes for a quick and convenient method of zooming all over the place without having to resort to fiddly icon control.

The game does suffer in the graphic and sonic departments. The landscapes look boring, and are drawn in the most horrendous choice of colours imaginable. There's very little in the way of sound, either. Then again, neither is very important for the type of game.

Sim City scores very highly indeed in the playability stakes. It's a very unusual idea, which works wonderfully well. There's an addictive quality that just keeps you coming back again and again. It's not the sort of game you could play quickly for a few minutes though. Mind you, compared to the real thing, it all happens very quickly indeed.



They say Rome wasn't built in a day, but with *Sim City* you could certainly have it rounded off by the end of the week!

Adam Waring

FIRST DAY TARGET SCORE

Build a city in Easy mode

The Verdict

GRAPHICS 62%
■ Nasty colour scheme. Poor graphics.

SONICS 05%
■ Just the occasional beep.

GRAB FACTOR 80%
□ Friendly system makes town planning easy for beginners.

STAYING POWER...88%
□ The most original, engrossing game for ages!

AA RATING 82%

□ *Sim City* is Fun City!


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Balrog

Lots of home-brew quickies this month, plus all the regulars...



Battling through the various dimensions the Balrog arrives to ponder on the marvels of the worlds of adventure...

NEWS... NEWS... NEWS...

Topologika Special

Last month's Topologika offer is still open – so you can buy any three Topologika games for only £27!

The games available are: **Acheton** (*AA29* – 69%), **Avon** (*AA51* – 87%), **Monster of Murdac** (*AA11* – 75%), **Countdown to Doom** (*AA26* – 59%), **Return to Doom** (*AA35* – 70%), **Last Days of Doom** (*AA62* – 82%), **Giant Killer, Kingdom of Hamil**, **Philosophers Quest** (*AA26* – 58%) and **Hezarin**.

To take advantage of the offer, just send Topologika a cheque for £27. Its address is **PO Box 39, Stilton, Peterborough PE7 3RL**. The offer closes January 1st.

PAW Pictures

Gilsoft has now finally released a program that lets you write graphic adventures. The new upgrade allows any adventure you have written, which has about 2.5K of TPA space available, to have disk-based graphics added. The package allows anything from 2 to 20 lines of the screen to be reserved for graphics, the remainder is then turned into a text window for the game. The package is supplied as three extra programs. It is available ONLY as an upgrade by direct mail from Gilsoft. At £5.99 + 50p p&p it's an excellent addition to the *PAW* author's library. For more details write to Gilsoft at **2 Park Crescent, Barry, South Glamorgan, CF6 8HD** or telephone on 0446 732765.

BALROG'S POST

● Home-brew advice?

Why don't you do a section on how to get started on home-brew adventure games, including the best writing systems to your knowledge, legal advice and even how to go about packaging, writing instructions and the best places to get reviews?

Gwynn Hopkins
Llandre

Nice idea, Gwynn, but unfortunately I just don't have the space in these illustrious pages – however the magazine Adventure Coder *should answer all your questions. For more information, write to the editor Chris Hester at* ***3 West Lane, Baildon, Near Shipley, West Yorkshire, BD17 5HD****.*

● More magick?

I have recently completed *Heavy on the Magick*, and have searched everywhere for the next game. Can you tell me if Gargoyle Games did a sequel to *Heavy on the Magick*? I have written to them but to date have had no reply.

E Heather
Raddyke

*Although three follow-up games were promised (*Collodon's Pile, Tombs of Taro *and* Paradise Reglossed*) they never appeared. In fact,* Heavy on the Magick *was Gargoyle's last game...*



● I want to write a best-seller...

I am currently writing my first adventure on *GAC*. My problem is that I'm not sure about the ratio of puzzles to rooms and objects to rooms. Can you help? Also are there any things which are considered nearly essential in adventures now?

David Mackie
Leeds

If the Balg knew how to write a best-seller he would have done so and made loadsagold! But seriously, the ratio is entirely up to you, although be careful not to go to extremes – large adventures with no puzzles are very boring (a recent adventure on the Spectrum had over a million locations – but little action!) whereas small adventures with many puzzles some people enjoy. It's all up to individual tastes – some people like solving puzzles, others exploring... ask your friends for their opinions and remember to get the game playtested!

As to essential features in adventures... Mmmm, that's a toughie! It used to be a lamp and sword, then there just had to be a maze in the game – nowadays the trend seems to be that a game should feature many interactive characters – which, although not essential, can, if programmed well, add a lot to the game. Of course, it's up to you what you put in the game but try to look at the features which make a good game (i.e. good parser, atmospheric descriptions etc.)

The best of luck with your game David, and who knows, you may well go on to become the Level 9 of the future!

HELP!

If you're stuck in an adventure and can't find anyone at all to come to your aid then write to the Balrog...

- **David Page** is stuck in **Mindshadow** – has the man in the shower or the woman hat-keeper got any significance?
- **Lee Graham** needs help in **The Hobbit** – "I have the golden key, rope and sword but I am now stuck – I can't get past the waterfall or portcullis."
- **Simon Avery** is bogged down with problems in **The Boggit** – how do you cross the stream, get out of the goblin's dungeon and escape the elves' hall?
- **Patrick Dyson** is stuck in **Lancelot** – he has found four knights but he cannot get past the giant to get the key.
- **Fred Collins** is still stuck in **Slaine** – does anyone know how to kill the water demon?

Home-brew heaven...

Over the past few months the Balg's postbag has overflowed with new home-brew adventures written by various readers. There is just no way that the Balg has the space or the time to give all of them full reviews. However, the Balg has decided to write mini-reviews on each game...

CITY FOR RANSOM

£1.99 tape, £4.50 disk ● John Packham ● 60 Hightown Towers, Warburton Road, Southampton, Hants SO2 6HH

Somewhere in London is an atom bomb, and terrorists are holding the city to ransom for a total of five million pounds. The Prime Minister has decided not to give in to the terrorists' demands but has instead sent you to find and defuse the bomb – due to detonate in twelve hours, taking most of London with it...

GACed by the same author as *Panic Beneath the Sea* (reviewed *AA51*), *City* is a better game. The scenario still isn't very original, although the actual game is well written. As with most *GAC* games the graphics aren't anything to rave about, but as always they can be switched off if you want. *City* is a good, logical adventure which should appeal to most.

The Balg's version of *City for Ransom* had some minor bugs, but John assures me that they have all been rectified. Overall, it's well worth the asking price of £2 but it doesn't have any major selling points.

VIDEOWORLD

£2 tape only ● Graham Perry ● 19 Nile Street, Norwich NR2 4JU

Imagine sitting in front of your television watching *The Great Escape* for the umpteenth time. Slowly you start to nod off, and before you know it you're asleep. Suddenly you're awoken by shouting "Stand-by, studio! Two minutes! Make-up, can you do something about our friend?"

A powder puff is dabbed on your forehead and people are shouting on all sides. By a quirk of fate and not to mention a devious imagination, you have become an active participant in a new production... *Videoworld.* You are the star of the show...

After a few minutes exploring you will find that you are on the set of a POW compound complete with perimeter fence, tunnels, German guards and, of course, a Steve McQueen look-alike!

Videoworld is the oldest, yet most professionally-produced game on offer – it was originally released way back in 1987 and Graham has decided to sell it again. The game is text-only and was written on *The Quill.* It comes in two parts – the first is mostly set in the POW camp, whilst the second is set on the London Underground. In both parts you must escape.

For some reason, the Pilgrim never reviewed *Videoworld* when it was first released – which is a shame, as it is actually quite good. The whole game is played as a scripted film and this effect is well implemented. Whilst exploring *Videoworld* you will visit *Grange Hill*, see the royal coronation, go to the Bank of England and meet, amongst others a Triffid, John Cole (the TV reporter) and Sooty and Sweep!

The game is humorous and well written and certainly worth buying – don't be put off by its age!

ZED

£2 tape only ● Paul Robson ● 23 Park Lane, Middlesborough TS1 3LQ

You're settling down to play your favourite game when a poor quality pirate program appears which you can't get rid of. This is the threat posed by Madstar Satellite Industries, owned by Dr. Kryptic.

You take the part of 'The Controller' of ISIS, the Institute for the Suppression of Inferior Software. You must save the world by destroying the transmitter responsible for this threat. Confused? So was the Balrog! What the transmitter has to do with my CPC and how the pirate program got on the machine, I have no idea!

To help you on your quest you have a droid called ZED (Zetetic Enumerative Droid) which is controlled by a ZIP (Zetetic Instruction Parser unit). By using this ZIP you can swap control between yourself and ZED. This makes for some very clever puzzles where you swap between two totally different characters – a little like the robots in Infocom's *Suspended.*

The scenario put the Balg straight off the game but I gave *ZED* a chance and was pleasantly surprised – the dual character control an original idea (it has only been used on before on a CPC game) and the game area large – over 100 locations. Added to all this is cunning 3D maze, to give you a difficult b addictive adventure. There are even two ve sions to the game, depending on whether yc use the male or the female toilet near the sta (Bit of a rip-off from *Leather Goddesse* methinks!)

The only problem is that the game may b too difficult – some of the clues it gives for code (which is needed to turn off the abov mentioned transmitter) are very obtuse ar even misleading. All in all a good game to bu if you like difficult games, otherwise ste clear.

GHOST HOUSE

£2.99 tape, £4.99 disk ● Andrew Price ● 48 Lockington Crescent, Dunstable, Beds LU5 4SU (0582 609533)

While glancing through a local newspaper, yo read a small article detailing the history of a old haunted house which lies at the top c Cemetery Hill. You are a ghost hunter (buster and decide to investigate.

The object of the game is to search th grounds and inside the house for the four part of a seal to stopper a genie's lamp.

Ghost House is GACed with some (poo graphics. It's well-written and would be a goo game if it were not due to lack of playtesting there are spelling mistakes, grammatical error and various bugs.

The Examine command very rarely gives response while 'drop' isn't even recognised The puzzles aren't too hot, either, and Andrew has fallen into a fairly common trap – he ha described all his locations as if they have jus been visited for the first time.

For example, in the moonlit garden, yo hear a 'rustling, but it is only a black cat whic scuttles into the undergrowth' each time yo enter the location! Another example is a loca tion where it describes 'your torchlight illumi nating the area' even if the torch is switche off or not even carried!

The Balg sees many games that are ruine by lack of proper playtesting and *Ghost House* is yet another example...

THE RATINGS

	ATMOSPHERE	INTERACTION	CHALLENGE	OVERALL
City for Ransom	60	59	62	62
Videoworld	72	63	62	70
ZED	44	69	75	64
Ghost House	32	30	41	28

Clue Sniffing with the Balrog

This month's clues are from Angela Allum, Adrian Forbes, Simon Avery, Simon Netherwood, Gareth Jones, David Page, Stuart Whyte and Paul & Timothy Stitt...

Avon

- If you are put in jail a second time you get a tone-deaf jailer. You have to arrange your order of actions.
- In June, find the skull before going to see the witches.
- While wearing the ass's head, do something asses do.

Base

- On the catwalk, wait a turn before going south.
- Don't play the cassette in the governor's stereo, play it in the car's.
- Read the book, and collect the card, use this to open the steel door with the slot – just put it in the slot.
- Search the rubbish in the attic to find the broom handle.

Boggit

In the Goblin's Dungeon: Examine torch, insert battery. The battery will be inserted into the He-man sword found in the troll's cauldron.

Classic Adventure

- To get rid of the snake, find and get the cage, now get the bird (you must NOT have the black rod when you collect the bird) then go to snake and drop bird.
- To dispense with the troll, pay him a toll the first time and then feed the bear, unlock the bear with the keys and get the bear, go back to the bridge and throw (!) bear at troll.

Mindshadow

- Cut the anchor chain with the meat cleaver to stop the boat.
- Say the password to the store keeper.
- Search the sleeping man.
- Duck as soon as you go into room 202.

Souls Of Darkon

- At start, Pull metal.
- Examine altar. Examine stone. Push carving. Turn plaque.
- Give axe to woodsman.
- Climb the tree.

Smashed

- Search pit, take money and find Cleancrazy, take book and when asked for a donation 'donate money'.
- To get the key to the medical stores, get cat (from VIP tent) and take to chopper, get in, switch on ignition and pull joystick – the cat will be sick and bring up the key (Yuk!)

Programming with the Balrog

Aron Watson from New Zealand has a great tip for PAW users trying to get that little bit extra out of their adventure creator...

When creating a large adventure on *The PAW*, sooner or later you will run out of message space. That's after using 255 messages and 195 free system messages, giving you a total of 450 messages. But, when implementing half a dozen good characters, they could take up 255 messages rather fast, and that's excluding any other game messages. The routine below allows you to use location text as messages.

Note: TEST should be a verb in the vocabulary.

```
/PRO 0

TEST     _        COPYFF 38 10       ;Copiesplayers loc. into flag 10
                  GOTO      1        ; Goto message
                  DESC               ; Displays message

/PRO 1

_        _        AT        1
                  COPYFF 10 38       ; Copies flag 10 to players flag 38
                  DONE
```

Location 1 = "Change to your own message!"

So, if you had an adventure with 100 locations and used the spare locations as messages, this would give you a total of 602 messages!

BARD'S TALE CLUB

D Kirkwood is another intrepid adventurer offering his knowledge of the *Bards Tale*.
11 Redvers Street, Ardwick, Manchester M11 3WU.

Nick Taylor has joined the club – what his 94th level Monks and Archmages can't sort out, no-one can!
20 Lightborne Road, Sale, Cheshire, M33 5EA

"I would like to know where the secret stairs are on Level 4 of Mangar's Tower."
Mark Foster, 9 Park View Terrace, Llanelli, Dyfed, South Wales

Kenneth Cheng is another reader who wants to join the Bard's Tale club.
1 Roseworth Close, Gosforth, Newcastle upon Tyne, NE3 1SW

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Type-ins

We hope you've been doing your finger exercises...

MADBALLS

A bit of a biggie, but great fun all the same. Steer yer balls around the maze, picking up the dots, but avoiding the things that kill you.

A fair few features have been implemented by the program's author, Lee Barwick from Sunderland. There are a number of levels to test your skill at, and if you do well enough you could get your name in the high score table.

You have the choice of using keyboard or joystick. Left and right move you, er, left and right. Fire makes you jump into the air, where you can levitate yourself to far-off platforms.

```
{MrCk}10·BORDER·26:INK·0,26:INK·1,0:INK·2,21:INK·3,16
        ,26:PAPER·0:MODE·1:GOSUB·1600
{MpEi}20·WINDOW#1,8,33,6,20:WINDOW#2,6,36,5,25:WINDOW
        #3,5,36,4,25:FOR·d=1·TO·3:PAPER#d,0:NEXT:WIND
        OW#7,3,3,12,17:PAPER#7,1:PEN#7,0
{CxBq}30·CLS:xs=1:GOSUB·40:xs=2:GOSUB·40:GOTO·50
{DvFl}40·FOR·x=xs·TO·xs+639·STEP·40:PLOT·x,399,xs:DRA
        W·x,1:NEXT:PLOT·636+xs,1:DRAW·636+xs,399:FOR·
        y=xs·TO·xs+399·STEP·40:PLOT·1,y,xs:DRAW·639,y
        :NEXT:PLOT·1,396+xs:DRAW·639,396+xs:RETURN
{DpEl}50·PLOT·110,78,1:DRAW·110,320:DRAW·528,320:DRAW
        ·528,78:DRAW·110,78:PLOT·108,76,2:DRAW·108,32
        2:DRAW·530,322:DRAW·530,76:DRAW·108,76:CLS#1
{FtAs}60·EVERY·6,0·GOSUB·1370
{FtAw}70·IF·at·THEN·at=0:GOTO·1020
{HvBr}80·CLS#1:DI:LOCATE·16,10:PEN·1:PRINT"[C]ontrol:
        "
{PuAx}90·LOCATE·16,11:PEN·3:PRINT·c$(cnt)
{NxCo}100·LOCATE·17,13:PEN·1:PRINT"[S]kill:":LOCATE·1
        7,14:PEN·3:PRINT·s$(sk)
{NiBq}110·LOCATE·13,16:PEN·1:PRINT"[H]i-Score·Table"
{CwBm}120·LOCATE·18,18:PEN·1:PRINT"[P]lay"
{IkAn}130·GOSUB·1420
{PtCl}140·a$=UPPER$(INKEY$):IF·a$="C"OR·a$="S"OR·a$="
        P"OR·a$="H"THEN·150·ELSE·140
{OiCi}150·IF·a$="S"THEN·180·ELSE·IF·a$="P"THEN·200·EL
        SE·IF·a$="H"THEN·1020
{HwAx}160·cnt=cnt+1:IF·cnt>3·THEN·cnt=1
{AlBp}170·DI:PEN·3:LOCATE·16,11:PRINT·c$(cnt):EI:GOTO
        ·140
{MxAw}180·sk=sk+1:IF·sk>3·THEN·sk=1
{AxBr}190·DI:PEN·3:LOCATE·17,14:PRINT·s$(sk):EI:GOTO·
        140
{OtAx}200·a=FNa:BORDER·0:PAPER·1:CLS
{MxEp}210·jr=76:IF·cnt=1·THEN·lt=74:rt=75:jp=77:up=72
        :dn=73·ELSE·IF·cnt=2·THEN·lt=8:rt=1:jp=9:up=0
        :dn=2·ELSE·lt=71:rt=63:jp=47:up=38:dn=37
{LtAr}220·lv=1:sc=0:li=3
{KlBu}230·PAPER·1:CLS:CLS#2:CLS#3:PEN·0:LOCATE·17,1:P
        RINT"Madballs"
{LjBi}240·FOR·a=1·TO·20:g$(a)=m$(lv,a):NEXT
{DqBx}250·PEN·2:LOCATE·2,2:PRINT"Score···Lives":LOCAT
        E·27,2:PRINT"Level····Time"
{PmAr}260·PRINT#7,"ENERGY";
{HuCl}270·PLOT·28,126,0:DRAW·50,126:DRAW·50,330:DRAW·
        28,330:DRAW·28,126:PLOT·28,226:DRAW·50,226
{KvBs}280·PLOT·38,328,3:DRAW·38,228:PLOT·40,328:DRAW·
        40,228
{ApCo}290·tm=0:ep=4:IF·sk=2·THEN·tm=60:ep=3·ELSE·IF·s
        k=3·THEN·tm=45:ep=2
{IuAm}300·en=ep*100
{MqCw}310·PEN#2,1:LOCATE#2,1,20:PRINT#2,TAB(8)"Curren
        t·control:":PEN#2,3:PRINT#2,TAB(11)c$(cnt)CHR
        $(18)
{PuCn}320·PEN#2,1:PRINT#2:PRINT#2,TAB(10)"Skill·level
        :":PEN#2,3:PRINT#2,TAB(13)s$(sk):PEN#2,1
{PsEi}330·PRINT#2:PRINT#2:PRINT#2,TAB(8)"Press·any·ke
        y·to":PRINT#2,TAB(12)"play....":FOR·a=1·TO·6:
        PRINT#2:NEXT:GOSUB·2510:FOR·a=1·TO·17:PRINT#2
        :NEXT
{EqDj}340·LOCATE#2,1,1:PRINT#2,CHR$(22)CHR$(1);:FOR·a
        =1·TO·20:PEN#2,1:PRINT#2,g$(a);:NEXT:PRINT#2,
        CHR$(22)CHR$(0);
{FlBn}350·a=x(lv):b=y(lv):se=1:xp=s(lv):yp=0
{AqBv}360·GOSUB·1480:FOR·c=1·TO·100:NEXT:LOCATE·5+xp,
        4+yp:PRINT"·"
{JlDp}370·IF·a=xp·THEN·yp=yp+1:SOUND·1,680,10,7,1·ELS
        E·SOUND·1,1500,10,7,1:IF·xp<a·THEN·xp=xp+1·EL
        SE·xp=xp-1
{GuAw}380·IF·yp=b+1·THEN·390·ELSE·360
{ItDx}390·LOCATE·2,3:PEN·3:PAPER·1:PRINT·USING"#####"
        ;sc;:PRINT·SPC(4)STRING$(li,204):LOCATE·29,3:
        PRINT·USING"#";lv;:PRINT·SPC(7)USING"##";tm
{LsBw}400·fl=0:xp=x(lv):yp=y(lv):IF·sk>1·THEN·EVERY·5
        0,0·GOSUB·1430
{JsAn}410·GOSUB·1480
{MkDk}420·IF·fl=1·THEN·1330·ELSE·IF(INKEY(jp)>-
        1·OR·INKEY(jr)>-1)AND·INKEY(lt)>-1·THEN·a=-
        1:b=lt:GOTO·590
{OiCm}430·IF(INKEY(jp)>-1·OR·INKEY(jr)>-
        1)AND·INKEY(rt)>-1·THEN·a=1:b=rt:GOTO·590
{MmBl}440·IF·INKEY(rt)>-1·THEN·a=1:GOTO·470
{ArBm}450·IF·INKEY(lt)>-1·THEN·a=-1:GOTO·470
{HwAl}460·GOTO·420
{LwBu}470·xp=xp+a:IF·(xp=1·OR·xp=30)AND·MID$(g$(yp),x
        p,1)="·"THEN·870
{KtBo}480·IF·xp=1·OR·xp=30·THEN·xp=xp+-a:GOTO·410
{AuBk}490·IF·FNc1=143·THEN·xp=xp+-a:GOTO·410
{DrCr}500·se=se+1:DI:PAPER·0:LOCATE(5+NOT(a-
        1))+xp,4+yp:PRINT"·":EI:IF·se=5·THEN·se=1
{NlAv}510·GOSUB·1500:GOSUB·1520:GOSUB·1570
{IoAu}520·SOUND·1,1500,10,7,1
{DvAu}530·IF·FNc2=143·THEN·410
{IjAv}540·SOUND·1,1500,10,7,,4
{DmAx}550·GOSUB·1480:GOSUB·1500:GOSUB·1520
{LpBo}560·IF·FNc2=143·THEN·SOUND·1,680,10,7,,3:GOTO·4
        10
{DmAu}570·SOUND·1,1500,10,7,1
{HsCi}580·yp=yp+1:DI:LOCATE·5+xp,3+yp:PAPER·0:PRINT"·
        ":EI:GOTO·550
{DmBq}590·IF·y=1·OR·MID$(g$(yp-
        1),xp,1)=CHR$(143)THEN·410
{CuAr}600·yp=yp-1:GOSUB·1520
{PoBm}610·DI:PAPER·0:LOCATE·xp+5,yp+5:PRINT"·":EI
{IsAs}620·GOSUB·1500:GOSUB·1480
{OoAv}630·SOUND·1,1500,11,7,,1
{EwCv}640·IF·fl=1·THEN·1330·ELSE·IF·INKEY(b)>-
        1·AND(INKEY(jp)>-1·OR·INKEY(jr)>-1)THEN·690
{LnBk}650·SOUND·1,125,10,7,,2:GOTO·550
{HwAr}660·yp=yp+1:GOSUB·1520
{LkAm}670·GOSUB·1500
{ItBi}680·IF·FNc2=143·THEN·410·ELSE·550
{AvBr}690·xp=xp+a:IF·xp=1·OR·xp=30·THEN·xp=xp+NOT(a-
        1)
{IsAn}700·GOSUB·1500
{DxBn}710·IF·FNc1=143·THEN·xp=xp+(NOT(a-1)):GOTO·650
{JvAr}720·GOSUB·1520:GOSUB·1500
{AxBs}730·DI:PAPER·0:LOCATE(5+NOT(a-
        1))+xp,4+yp:PRINT"·":EI
{OqAn}740·GOSUB·1480
{IpAu}750·SOUND·1,125,10,7,1
{LpAl}760·GOTO·640
{CqDj}770·a=FNa:a=0:PAPER·0:LOCATE·4+xp,4+yp:PRINT"··
        ·":xp=xp+1:GOSUB·1450:xp=xp-
        2:GOSUB·1450:xp=xp+1
{OuDi}780·FOR·f=yp-
        1·TO·yp+1:LOCATE·5+xp,4+f:PRINT"·":NEXT:yp=yp
        -1:GOSUB·1450:yp=yp+2:GOSUB·1450:yp=yp-1
{ExBp}790·EVERY·50,0·GOSUB·1390:IF·li=1·THEN·GOTO·107
        0
{TkBk}800·t$="Hard·Luck!":c=6:GOSUB·1540
{DjBr}810·c=10:t$="You·Have·Been·Killed·-":GOSUB·1540
{CkCx}820·t$="But·you·still·have"+STR$(li-
        1):IF·li>2·THEN·t$=t$+"·lives·left!"ELSE·t$=t
        $+"·life·left!!"
{NoCi}830·c=11:GOSUB·1540:IF·li=2·THEN·t$="(Phew!!)":
        c=12:GOSUB·1540
{NqBn}840·t$="Press·any·key!":c=15:GOSUB·1540
{KoAn}850·GOSUB·2510
{LvBx}860·a=FNa:PAPER·1:LOCATE·1,3:PRINT·SPACE$(40):l
        i=li-1:GOTO·230
{CrAm}870·a=FNa
{KmCm}880·LOCATE·5+xp,4+yp:PRINT·CHR$(8)"···":GOSUB·1
        480:PRINT:IF·lv=3·THEN·1000
{DpAx}890·t$="Well·Done!":c=8:GOSUB·1540
{BxBn}900·t$="You·have·completed":c=10:GOSUB·1540
{HrBm}910·t$="Level"+STR$(lv)+".":c=11:GOSUB·1540
{EnEx}920·d=lv*sc:t$="Bonus=Level*Skill*50":c=13:GOSU
        B·1540:y$=RIGHT$(STR$(lv),1):z$=RIGHT$(STR$(s
        k),1):t$=SPACE$(5)+"="+y$+"*"+z$+"*50"+SPACE$
        (8):c=14:GOSUB·1540
{LjDp}930·sc=sc+(lv*sk*50):t$=STR$(lv*sk*50):t$=SPACE
        $(5)+"="+RIGHT$(t$,LEN(t$)-1)+SPACE$(14-
        LEN(t$)+1):c=15:GOSUB·1540
{FpBn}940·t$="Press·any·key:":c=17:GOSUB·1540
{EqAx}950·lv=lv+1:WHILE·INKEY$<>"":WEND
{JkCo}960·yp=0:FOR·xp=0·TO·31:GOSUB·1460:NEXT:xp=31:F
        OR·yp=0·TO·21:GOSUB·1460:NEXT
{EwCv}970·yp=21:FOR·xp=31·TO·0·STEP·-
        1:GOSUB·1460:NEXT:xp=0:FOR·yp=21·TO·0·STEP·-
        1:GOSUB·1460:NEXT
{CuAm}980·GOTO·960
{BuAm}990·GOTO·230
{OqDn}1000·t$="CONGRATULATIONS!":c=6:GOSUB·1540:t$="Y
        ou·have·completed":c=8:GOSUB·1540:t$="the·gam
        e!!":c=9:GOSUB·1540
{EtCi}1010·t$="MegaBonus=555":sc=sc+555:c=11:GOSUB·15
        40:lv=0:GOTO·940
{KrAs}1020·CLS#1:GOSUB·1420
{ErBo}1030·DI:LOCATE·16,10:PEN·2:PRINT"Hi-Scores:":EI
{DqDn}1040·FOR·d=1·TO·5:DI:LOCATE·14,11+d:PEN·3:PRINT
```

```
        ·USING"#";d;:PRINT"·"name$(d)"..."USING"#####
        ";sc(d):EI:NEXT
{KpBo}1050·DI:PEN·2:LOCATE·13,18:PRINT"Press·any·key.·
        ..":EI
{EqAr}1060·GOSUB·2510:GOTO·80
{CoBl}1070·t$="G·A·M·E····O·V·E·R":c=10:GOSUB·1540
{KnBm}1080·IF·sc)sc(5)THEN·1090·ELSE·1320
{NjBm}1090·at=1:t$="Well·Done!":c=12:GOSUB·1540
{LqCo}1100·t$="You·have":c=14:GOSUB·1540:t$="achieved
        ·a·new·hi-score:":c=15:GOSUB·1540
{KvDi}1110·WINDOW#6,12,29,17,19:PAPER#6,1:CLS#6:DI:LO
        CATE·13,17:PEN·0:PAPER·1:PRINT"Enter·your·nam
        e:":EI
{PqBq}1120·in$="....":DI:PEN·3:LOCATE·19,19:PRINT·in$
        :EI
{IwAm}1130·d=19
{LlAt}1140·c$=MID$(in$,d-18,1)
{EvBn}1150·DI:PAPER·3:PEN·1:LOCATE·d,19:PRINT·c$:EI
{EvBu}1160·IF·INKEY(up))-
        1·THEN·c$=CHR$(ASC(c$)+1):GOTO·1220
{KtBu}1170·IF·INKEY(dn))-1·THEN·c$=CHR$(ASC(c$)-
        1):GOTO·1220
{PlBn}1180·IF·INKEY(lt))-1·THEN·d=d-1:GOTO·1240
{EmBo}1190·IF·INKEY(rt))-1·THEN·d=d+1:GOTO·1240
{ErBs}1200·IF·INKEY(jp))-1·OR·INKEY(jr))-1·THEN·1280
{MvAm}1210·GOTO·1160
{HsCn}1220·IF·ASC(c$)(32·THEN·c$=CHR$(126)ELSE·IF·ASC
        (c$))126·THEN·c$=CHR$(32)
{OtBq}1230·MID$(in$,d-
        18,1)=c$:FOR·e=1·TO·20:NEXT:GOTO·1140
{FpBu}1240·IF·d(19·THEN·d=22·ELSE·IF·d)22·THEN·d=19
{JwBp}1250·DI:LOCATE·19,19:PAPER·1:PEN·3:PRINT·in$:EI
{MqAs}1260·FOR·e=1·TO·20:NEXT
{MnAn}1270·GOTO·1140
{GrBq}1280·a=FNa:LOCATE·19,19:PAPER·1:PEN·3:PRINT·in$
{AmAn}1290·a=5
{FlBx}1300·IF·sc)sc(a)·THEN·a=a-
        1:IF·a=0·THEN·1310·ELSE·GOTO·1300
{PpCu}1310·a=a+1:FOR·b=5·TO·a·STEP·-1:sc(b)=sc(b-
        1):name$(b)=name$(b-
        1):NEXT:sc(a)=sc:name$(a)=in$
{CuCs}1320·t$="Press·any·key....":c=22:GOSUB·1540:GOS
        UB·2510:a=FNa:PAPER·0:BORDER·26:GOTO·30
{BtCk}1330·a=FNa:FOR·f=7·TO·1·STEP·-
        1:SOUND·4,94,4,f:NEXT:IF·li=1·THEN·1070
{OqEs}1340·t$="You·have·ran":c=8:GOSUB·1540:IF·en(1·T
        HEN·1350·ELSE·t$="out·of·time!":c=9:GOSUB·154
        0:t$="You·are·trapped·in·the·maze!":c=11:GOSU
        B·1540:GOTO·1360
{CwCw}1350·t$="out·of·energy·and·are·unable":c=9:GOSU
        B·1540:t$="to·continue!":c=10:GOSUB·1540
{LtAm}1360·GOTO·840
{KnDi}1370·tx$=RIGHT$(tx$,LEN(tx$)-
        1)+LEFT$(tx$,1):LOCATE·15,7:PEN·pn:PRINT·tx$:
        pn=pn+1:IF·pn)3·THEN·pn=1
{ApAo}1380·RETURN
{GmGr}1390·IF·a=0·THEN·GOSUB·1480·ELSE·LOCATE·5+xp,4+
        yp:PAPER·0:PEN·1:PRINT·"·"CHR$(8)CHR$(22)CHR$
        (1)MID$(g$(yp),xp,1)CHR$(8);:PEN·2:PRINT·MID$
        (g$(yp),xp+33,1)CHR$(8);:PEN·3:PRINT·MID$(g$(
        yp),xp+66,1)CHR$(22)CHR$(0)
{DtAv}1400·IF·a=0·THEN·a=1·ELSE·a=0
{DsAo}1410·RETURN
{FuBv}1420·PEN·1:LOCATE·9,20:PRINT"-
        ·(C)1990··Lee·Barwick·-":EI:RETURN
{PlDv}1430·SOUND·4,278,4,4:SOUND·4,0,2:SOUND·4,114,4,
        4:tm=tm-
        1:LOCATE·37,3:PEN·3:PAPER·1:PRINT·USING"##";t
        m:IF·tm(1·THEN·fl=1
{MnAn}1440·RETURN
{NjFm}1450·DI:LOCATE·5+xp,4+yp:PEN·1:PRINT·CHR$(22)CH
        R$(1)MID$(g$(yp),xp,1)CHR$(8);:PEN·2:PRINT·MI
        D$(g$(yp),xp+33,1)CHR$(8);:PEN·3:PRINT·MID$(g
        $(yp),xp+66,1)CHR$(22)CHR$(0):EI:RETURN
{LlCv}1460·GOSUB·1480:FOR·a=1·TO·10:NEXT:LOCATE·5+xp,
        4+yp:PAPER·0:PRINT"·";:IF·INKEY$()""THEN·990
{FiAn}1470·RETURN
{DmFn}1480·DI:PAPER·0:PEN·3:LOCATE·5+xp,4+yp:CALL·&BD
        19:PRINT·"·"CHR$(8)CHR$(22)CHR$(1)CHR$(203+se
        )CHR$(8);:PEN·1:PRINT·CHR$(199+se)CHR$(22)CHR
        $(0);:EI:se=se+1:IF·se=5·THEN·se=1
{AkAn}1490·RETURN
{LjEo}1500·IF·FNc3=154·THEN·sc=sc+5:MID$(g$(yp),xp,1)
        ="·":MID$(g$(yp),66+xp,1)="·":DI:LOCATE·2,3:P
        APER·1:PEN·3:PRINT·USING"#####";sc:EI:SOUND·2
        ,90,14,7,2,5
{FwAn}1510·RETURN
{IjBj}1520·IF·FNc3=153·OR·FNc3=152·THEN·770
{DmAn}1530·RETURN
{NuAv}1540·b=(40-LEN(t$))\2:TAG
{AmBr}1550·DI:PLOT·(b*16)-2,397-((c-
        1)*16),1:PRINT·t$;:TAGOFF:EI
{OnCj}1560·DI:PEN·3:LOCATE·b+1,c:PRINT·CHR$(22)CHR$(1
        )t$CHR$(22)CHR$(0):EI:RETURN
{MuDn}1570·en=en-1:PLOT·38,328,1:DRAW·38,328-(100-
        (en/ep)):PLOT·40,328:DRAW·40,328-(100-
        (en/ep)):GOTO·1590
{FvDi}1580·en=en-2:PLOT·38,328,1:DRAW·38,328-(100-
        (en/ep)):PLOT·40,328:DRAW·40,328-(100-
        (en/ep))
{MsBl}1590·IF·en(1·THEN·1330·ELSE·RETURN
{JuCp}1600·CLS:WINDOW#1,13,28,8,18:PAPER#1,1:CLS#1:WI
        NDOW#1,14,27,9,17:PAPER#1,0:CLS#1
{JrDv}1610·ENV·1,5,1,1,5,-1,1:ENT·1,11,-
        125,1:ENT·2,10,68,1:ENT·3,10,82,1:ENT·4,10,-
        82,1:ENV·2,14,-1,1:ENT·5,10,2,1,4,-1,1
{LjBn}1620·LOCATE·15,16:PEN·3:PRINT"Initialising"
{GlAr}1630·SYMBOL·AFTER·149
{MjBl}1640·SYMBOL·150,255,195,165,153,153,165,195,255
{KmAx}1650·SYMBOL·151,0,16,0,0,146,0,0,16
{GmBl}1660·SYMBOL·152,0,0,56,124,108,124,56,0
{ClBm}1670·SYMBOL·153,0,0,76,238,238,254,255,255
{FxAx}1680·SYMBOL·154,0,0,0,24,24,0,0,0
{JrBi}1690·SYMBOL·155,0,0,24,36,36,24,0,0
{IvBl}1700·SYMBOL·156,0,24,36,66,66,36,24,0
{OxCw}1710·LOCATE·17,10:PEN·1:PRINT"MADBALLS":LOCATE·
        20,12:PRINT"By":LOCATE·15,14:PRINT"Lee·Barwic
        k."
{GuAr}1720·DEF·FNa=REMAIN(0)
{NqBt}1730·DIM·c$(3),s$(3),g$(20),m$(3,20),x(3),y(3),
        s(3),a$(12)
{CnCl}1740·x(1)=26:y(1)=3:s(1)=30:x(2)=23:y(2)=5:s(2)
        =18:x(3)=3:y(3)=3:s(3)=7
{LjAu}1750·tx$="MADBALLS....":pn=1
{DjBw}1760·c$(1)="·Joystick·":c$(2)="··Cursor··":c$(3
        )="···Keys···":cnt=1
{HjEj}1770·DEF·FNc1=ASC(MID$(g$(yp),xp,1)):DEF·FNc2=A
        SC(MID$(g$(yp+1),xp,1)):DEF·FNc3=ASC(MID$(g$(
        yp),xp+66,1)):DEF·FNc4=ASC(MID$(g$(yp),xp+66,
        1))
{JlBm}1780·FOR·a=1·TO·5:READ·sc(a),name$(a):NEXT
{GiBq}1790·DATA·2000,JOEY,1500,MEL.,1200,BOB.,800,PAU
        L,500,SUE.
{OjBv}1800·s$(1)="Amateur·":s$(2)="Skilled·":s$(3)="·
        Expert·":sk=1
{GrCj}1810·SYMBOL·200,0,0,0,192,128,0,0,0:SYMBOL·204,
        60,118,255,63,127,255,126,60
{JqCo}1820·SYMBOL·201,0,0,0,64,0,0,16,24:SYMBOL·205,6
        0,126,255,191,255,255,118,36
{JvCl}1830·SYMBOL·202,0,0,0,1,3,0,16,0:SYMBOL·206,60,
        126,255,254,252,255,118,60
{NuCm}1840·SYMBOL·203,24,8,0,0,2,0,0,0:SYMBOL·207,36,
        118,255,255,253,255,126,60
{DqAu}1850·DATA·000000000000000000000000440000
{JiAu}1860·DATA·014444444004144444444444444410
{ItAw}1870·DATA·000004444403333433224444444440
{IlAv}1880·DATA·444444444400000400000000000040
{LjAt}1890·DATA·444444444444444044444444441040
{JuAx}1900·DATA·000000443333304444444433334040
{FpBi}1910·DATA·000004440000000000003340000040
{HpBi}1920·DATA·044444404444444440000040000040
{BpBo}1930·DATA·044333004333434440144440444040
{OoBm}1940·DATA·044000004000404430444330433404
{HiBI}1950·DATA·004440004400444400440000400040
{NuBk}1960·DATA·000444441444444000433444444041440
{DuBk}1970·DATA·044000444444440000400000044043330
{KjAw}1980·DATA·044444000404444444444444440040000
{OpBk}1990·DATA·004400444444044443444444040044440
{DxBk}2000·DATA·000444433333000003444040440444430
{AiBk}2010·DATA·000044400000044410034044404430
{AiBi}2020·DATA·000004414444444444003443344300
{AxBj}2030·DATA·000000433322333330002333330000
{CiAs}2040·DATA·000000000000000000000000000000
{GnAs}2050·DATA·000000000000000000000040000000
{BkBl}2060·DATA·033340014444423333344040344410
{PkBi}2070·DATA·000044444441400000433040344440
{JtBk}2080·DATA·433404444404444444440144034440
{CuBm}2090·DATA·000340444404433322303344404440
{ArBk}2100·DATA·011034404444400000000000400440
{DuBj}2110·DATA·000000044034044444144410444400
{CvBi}2120·DATA·000004440004444414441444444000
{KqBi}2130·DATA·014444404400004000000000004400
{NrBl}2140·DATA·044444034404444131311103440440
{LtBi}2150·DATA·044430003403444444444403444440
{IuBn}2160·DATA·033404440404000000004400433330
{GoAw}2170·DATA·000344444044444444444044400000
{EnBi}2180·DATA·000044444300003444440233444430
{AiBk}2190·DATA·000004444044430344400000443300
{PnAx}2200·DATA·044444030444443034443044431040
{PjBj}2210·DATA·044440004440044303443044004430
{IoBj}2220·DATA·044404444400004430440444444300
{NtAw}2230·DATA·030444224000000444444424443000
{LwAr}2240·DATA·000000000000000000000000000000
{IrAt}2250·DATA·004000000000000000000000000000
{BxAu}2260·DATA·014444443434444444444444414430
{NoAw}2270·DATA·034334442244444000004444333230
{JxBi}2280·DATA·000004100004000444400044000000
{IrBl}2290·DATA·014104133334044440443404444440
{LqBl}2300·DATA·041404132314444401000340043330
{CoBj}2310·DATA·033304400000040443440344440330
{OsBj}2320·DATA·033330444144444434334404444000
{JrAx}2330·DATA·033000044430000001000300004400
{GiBi}2340·DATA·003333304304444433433330444240
{CpBk}2350·DATA·000003344040044434300000340040
{MtBj}2360·DATA·043330044440424444444430034444
{KnBk}2370·DATA·044244440004300400000444104400
{MoBk}2380·DATA·040000402333444143434044444040
{JoBi}2390·DATA·041334000000434444444404400040
{DwBn}2400·DATA·043414031434404404040440444440
{IkBl}2410·DATA·000014033323444031314414000440
{JkAw}2420·DATA·034334030000440344444444444400
{GvBl}2430·DATA·032434443333403303033332444000
{FuAs}2440·DATA·000000000000000000000000000000
{HsDo}2450·FOR·k=1·TO·3:FOR·a=1·TO·20:READ·a$:m$(k,a)
        =SPACE$(30)+CHR$(13)+CHR$(15)+CHR$(2)+SPACE$(
        30)+CHR$(13)+CHR$(15)+CHR$(3)+SPACE$(30)
{KuBk}2460·FOR·b=1·TO·30:c=VAL(MID$(a$,b,1))
{GJEm}2470·IF·c=0·THEN·MID$(m$(k,a),b,1)=CHR$(143):MI
        D$(m$(k,a),33+b,1)=CHR$(150)·ELSE·IF·c=1·THEN
        ·MID$(m$(k,a),b,1)=CHR$(151):MID$(m$(k,a),66+
        b,1)=CHR$(152)
{ItDm}2480·IF·c=2·THEN·MID$(m$(k,a),66+b,1)=CHR$(153)
        ·ELSE·IF·c=3·THEN·MID$(m$(k,a),66+b,1)=CHR$(1
        54):MID$(m$(k,a),b,1)=CHR$(155)
{IoAn}2490·NEXT·b,a,k
{HoBr}2500·LOCATE·15,16:PEN·3:PRINT"Press·a·key:":INK
        ·3,16
{FoBp}2510·WHILE·INKEY$()"":WEND:WHILE·INKEY$="":WEND
        :RETURN
```

FAKE ROM ● (6128 ONLY)

Fake ROM comes courtesy of Aussie reader Steven Smith. It takes any machine code program and stores it in extra RAM. (That's why it's restricted to 6128s only). It then pokes a small routine into address &bf08. The machine can now be reset and other programs loaded and run. A call to &bf08 will now copy the code from extra ram and re-initialize it. The routine at &bf08 is fairly robust and will survive most forms of soft reset including Control-Shift-Esc, Call 0, and the Multiface Reset. It will not survive the running of most commercial games or any programs that make use of extra RAM.

The type of program that can be used is subject to the following constraints: It must load to &8000 or higher, and it must be 9K or less in length.

Instructions for use.

1. Type it in: The machine code is not checksummed so use TYPE-WRITER to make sure you get it right.
2. Save it onto a disk containing the program you wish to save to extra ram.
3. The filename must be 8 characters with a full extension. Use |REN to change it if it isn't.
4. Run FAKEROM.BAS. Follow the prompts.
5. The code now can now be recalled after reset or running another program by CALL &bf08.

```
{DkAv}10·REM·pseudo-rom·by·s.smith
{IqBj}20·REM·get·filename·and·find·length
{NqBp}30·MODE·2:GOSUB·310:REM·machine·code·for·file·i
        nfo
{ArBw}40·PRINT"Enter·filename.It·must·have·8·letters·
        and·a·file·extension"
{IlAw}50·PRINT:PRINT"E.g·:-·YOURCODE.BIN"
{FjAv}60·PRINT:INPUT·file$:qq=LEN(file$)
{AuBn}70·IF·qq<>12·THEN·SOUND·1,4000,20:GOTO·40
{FsBr}80·IF·MID$(file$,9,1)<>"."·THEN·SOUND·1,400,20:
        GOTO·40
{NxAr}90·REM·find·length
{JlAp}100·FOR·f=1·TO·qq
{CqBj}110·POKE·&2016+f,ASC(MID$(file$,f,1))
{BkAl}120·NEXT
{ElCi}130·PRINT:PRINT"Put·disc·containing·file·in·dri
        ve.Then·press·a·key."
{NvAs}140·WHILE·INKEY$="":WEND
{OwAn}150·CALL·&2000
{EiBs}160·lobyte=PEEK(&2023):hibyte=PEEK(&2024)*256
{FoAv}170·length=lobyte+hibyte
{JmBq}180·lobyte=PEEK(&2025):hibyte=PEEK(&2026)*256
{KsAv}190·loadaddr=lobyte+hibyte
{EsBv}200·long$=HEX$(length,4):loadaddr$=HEX$(loadadd
        r,4)
{BkBr}210·PRINT"length=·"long$:PRINT"load·address=·"l
        oadaddr$
{MtCk}220·IF·loadaddr<&8000·THEN·PRINT"No·good:Loads·
        below·&8000":END
{AnBj}230·REM·page·in·bank·4·from·extra·ram
{JqBt}240·CALL·&BD5B,a,a,a,a:REM·firmware·call·kl·ban
        k·switch
{MqAv}250·LOAD·file$,&4000:REM·load·file
{PqBj}260·CALL·&BD5B:REM·page·bank·4·out
{CuBs}270·REM·file·is·now·in·bank·4:safe·from·a·soft·
        reset
{JsBn}280·REM·now·poke·recall·code·into·safe·area
{IoAm}290·GOSUB·410
{PoBt}300·PRINT"Finished:Call·&bf08·to·recall·code·af
        ter·reset":END
{KrAu}310·REM·load·machine·code
{DpAp}320·MEMORY·&1FFF
{OpAv}330·RESTORE·360:FOR·f=0·TO·38·
{FvBi}340·READ·a$:POKE·&2000+f,VAL("&"+a$)
{HoAn}350·NEXT:RETURN
{OiAw}360·DATA·06,0c,21,17,20,11,00,90
{ImAw}370·DATA·cd,77,bc,ed,43,23,20,ed
{JlAx}380·DATA·53,25,20,cd,7a,bc,c9,00
{MnAt}390·DATA·00,00,00,00,00,00,00,00
{GkAt}400·DATA·00,00,00,00,00,00,00,00
{BuAq}410·REM·recall·code
{FqAu}420·RESTORE·500:FOR·f=0·TO·23
{GjAm}430·READ·a$
{HwBp}440·IF·a$="LL"·THEN·a$=RIGHT$(loadaddr$,2)·
{MvBn}450·IF·a$="LH"·THEN·a$=LEFT$(loadaddr$,2)
{LpBl}460·IF·a$="SL"·THEN·a$=RIGHT$(long$,2)
{MkBl}470·IF·a$="SH"·THEN·a$=LEFT$(long$,2)
{KqAv}480·POKE·&BF08+f,VAL("&"+a$)·
{DiAn}490·NEXT:RETURN
{DvAx}500·DATA·3e,04,cd,5b,bd,21,00,40
{AkAx}510·DATA·11,LL,LH,01,SL,SH,ed,b0
{EiAw}520·DATA·af,cd,5b,bd,cd,LL,LH,c9
```

FASTBROT

Plot the Mandlebrot set at lightning speed (well, nearly), thanks to D. Catchpole from Sunny Scunny. The program can plot Julia sets as well, and has plenty of options such as colour cycling, and a choice of quick or accurate plotting of the sets.

Although it's certainly quicker than most, you'll still have time to take the dog for a three-mile walk while you leave the computer to it.

```
{CsAr}10·'·FastBrot·Generator
{NkAp}20·'·By·D.Catchpole
{PkAr}30·'·61·West·Common·Lane
{DxAn}40·'·Scunthorpe
{BpAn}50·'·S.Humberside
{BlAq}60·runit%·=·1
{BwAx}70·KEY·138,"gosub·2500"+CHR$(13)
{EjCl}80·KEY·139,"mode·2:ink·0,0:ink·1,24:paper·0:pen
        ·1:mode·2:list"+CHR$(13)
{LpAr}90·ON·BREAK·GOSUB·2070
{DiAn}100·GOSUB·1460
{AiAl}110·END
{DqBs}120·MODE·2:INK·0,0:INK·1,24:PAPER·0:PEN·1:MODE·
        2
{DiAu}130·INPUT·"Left·start···:-·",left
{ImAv}140·INPUT·"Botten·start·:-·",botten
{PoAr}150·INPUT·"Zoom·········:-·",zoom
{OxAm}160·mab%·=·1
{OpAn}170·RETURN
{MvAl}180·MODE·0
{NuBv}190·IF·runit%·=·1·THEN·DIM·pallet%(16)·:·runit%
        ·=·0
{BtCu}200·FOR·loop%·=·0·TO·15·:·INK·loop%,INT(loop%*1
        .5):pallet%(loop%)·=·INT(loop%*1.5):NEXT
{ItAl}210·CLS
{IiAo}220·RETURN·
{CmAx}230·'·Four·phase·plot·algorithm
{DoAq}240·'·plot·first·phase
{FvBi}250·IF·blank%·THEN·GOSUB·2460
{LmAq}260·ry·=·botten
{EvAu}270·FOR·sy·=·0·TO·400·STEP·4
{NwAo}280···rx·=·left
{MjAs}290···FOR·sx·=·0·TO·640·STEP·8
{CvBo}300·····IF·mab%·THEN·GOSUB·920·:·ELSE·GOSUB·108
        0
{EuAr}310·····PLOT·sx,sy,col%
{PkAx}320·····IF·cyc%·=·0·THEN·GOSUB·1010
{EoAu}330·····rx·=·rx·+·(zoom·*·4)
{GiAk}340···NEXT
{IiAv}350···ry·=·ry·+·(zoom·*·2)
{AqAl}360·NEXT
{DkAt}370·ry·=·botten·+·zoom
{ItAu}380·FOR·sy·=·2·TO·400·STEP·4
{LwAs}390···rx·=·left·+·zoom
{MuAt}400···FOR·sx·=·4·TO·640·STEP·8
{FoBu}410·····IF·NOT·(TEST·(sx·-·4,sy·-
        2)·=·TEST·(sx·+·4,sy·-2))·GOTO·460
{CvBu}420·····IF·NOT·(TEST·(sx·-·4,sy·-
        2)·=·TEST·(sx·+·4,sy·+2))·GOTO·460
{NmBu}430·····IF·NOT·(TEST·(sx·-·4,sy·-
        2)·=·TEST·(sx·-·4,sy·+2))·GOTO·460
{FnAx}440·····PLOT·sx,sy,TEST(sx·-·4,sy·-2)
{LpAn}450·····GOTO·480
{DuBo}460·····IF·mab%·THEN·GOSUB·920·:·ELSE·GOSUB·108
        0
{IuAq}470·····PLOT·sx,sy,col%
{GlBi}480·····IF·cyc%·=·0·THEN·GOSUB·1010
{OqAu}490·····rx·=·rx·+·(zoom·*·4)
{PkAj}500···NEXT
{HmAu}510···ry·=·ry·+·(zoom·*·2)
{FwAk}520·NEXT
{LpAq}530·ry·=·botten
{OlAu}540·FOR·sy·=·0·TO·400·STEP·4
{DsAs}550···rx·=·left·+·zoom
{LnAt}560···FOR·sx·=·4·TO·644·STEP·8
{MiBt}570·····IF·NOT·(TEST·(sx·-
        ·4,sy)·=·TEST·(sx·+·4·,sy·))·GOTO·620
{KqBs}580·····IF·NOT·(TEST·(sx·-
        ·4,sy)·=·TEST·(sx,sy·+·2))·GOTO·620
{MwBv}590·····IF·NOT·(TEST·(sx·-
        ·2,sy)·=·TEST·(sx,sy·-·2))·GOTO·620
{GoAu}600·····PLOT·sx,sy,TEST(sx·-·4,sy)
{DvAm}610·····GOTO·640
{MwBo}620·····IF·mab%·THEN·GOSUB·920·:·ELSE·GOSUB·108
        0
{IiAq}630·····PLOT·sx,sy,col%
{LrAx}640·····IF·cyc%·=·0·THEN·GOSUB·1010
{KiAu}650·····rx·=·rx·+·(zoom·*·4)
{EvAk}660···NEXT
{AiAv}670···ry·=·ry·+·(zoom·*·2)
{BtAk}680·NEXT
{NqAs}690·ry·=·botten·+·zoom
{KxAu}700·FOR·sy·=·2·TO·400·STEP·4
{HlAp}710···rx·=·left
{EtAt}720···FOR·sx·=·0·TO·640·STEP·8
{EvBv}730·····IF·NOT·(TEST·(sx,sy·+·2)·=·TEST·(sx,sy·
        -·2))·GOTO·780
{NlBr}740·····IF·NOT·(TEST·(sx,sy·+·2)·=·TEST·(sx·-
        ·4,sy))·GOTO·780
{ArBs}750·····IF·NOT·(TEST·(sx,sy·+·2)·=·TEST·(sx·+·4
        ,sy))·GOTO·780
{OvAw}760·····PLOT·sx,sy,TEST·(sx,sy·+·2)
{DnAm}770·····GOTO·800
{LjBn}780·····IF·mab%·THEN·GOSUB·920·:·ELSE·GOSUB·108
        0
{JmAq}790·····PLOT·sx,sy,col%
{PxAx}800·····IF·cyc%·=·0·THEN·GOSUB·1010
{EqAv}810·····rx·=·rx·+·(zoom·*·4)
{FpAk}820···NEXT
{GuAu}830···ry·=·ry·+·(zoom·*·2)
{OrAk}840·NEXT
{FrBi}850·IF·scl%·=·1·THEN·GOSUB·1970·
{AtBo}860·k$·=·""·:·IF·blank%·THEN·GOSUB·2490
{OsBp}870·WHILE·k$·<>·"C"·:·IF·cyc%·<·2·THEN·GOSUB·10
        10
{PvBi}880···k$·=·INKEY$·:·k$·=·UPPER$(k$)·
{JkAk}890·WEND
{DrAo}900·fast%·=·1
```

```
{ItAm}910·RETURN
{EuAt}920·'·Mandelbrot·function
{OwBj}930····cx·=·rx·:·cy·=·ry·:·iter%·=·0
{NlBp}940····WHILE·(cx↑2·+·cy↑2·<·1000)·AND·(iter%·<·
        255)
{IuAx}950······x·=·cx*cx·-·cy*cy·+·rx
{FjAu}960······cy·=·2·*·cx·*·cy·+·ry
{LsAw}970······cx·=·x:iter%·=·iter%·+·1
{MkAk}980····WEND
{CxAt}990····col%·=·iter%·MOD·16
{DrAn}1000··RETURN
{BiAp}1010·'·Colour·cycle
{HjAx}1020····pallet%(16)·=·pallet%(0)
{LwAv}1030····FOR·loop%·=·0·TO·15
{IpBl}1040······pallet%(loop%)·=·pallet%(loop%+1)
{IlAu}1050······INK·loop%,pallet%(loop%)
{OmAk}1060····NEXT
{HiAo}1070····RETURN
{BxAr}1080·'·Julia·Set·iteration
{PjBm}1090·xold·=·rx·:·yold·=·ry·:·iter%·=·0
{MvBr}1100·WHILE·(·xold↑2·+·yold↑2·<·1000)·AND·(·iter
        %·<·255·)
{OtBl}1110···x·=··xold·*·xold·-·yold·*·yold·+·p
{HtAx}1120···y·=··2·*·xold·*·yold·+·q
{FmBo}1130···xold·=·x·:·yold·=·y·:·iter%·=·iter%·+·1
{FqAl}1140·WEND
{MwAs}1150·col%·=·iter%·MOD·16
{HvAn}1160·RETURN
{DsAt}1170·'·Alternative·method
{AwAp}1180·start·=·TIME
{OwAq}1190·ry·=·botten
{BrAv}1200···FOR·sy·=·0·TO·400·STEP·2
{NwAp}1210·····rx·=·left
{CxAu}1220·····FOR·sx·=·0·TO·640·STEP·4
{HwBo}1230·······IF·mab%·THEN·GOSUB·920·:·ELSE·GOSUB·
        1080
{GpBt}1240·······IF·trans%·THEN·GOSUB·2580·:·ELSE·PLO
        T·sx,sy,col%
{MnBj}1250·······IF·cyc%·=·0·THEN·GOSUB·1010
{EsAw}1260·······rx·=·rx·+·zoom·+·zoom
{LnAl}1270·····NEXT
{CpAt}1280·····ry·=·ry·+·zoom
{NxAl}1290···NEXT
{HtBi}1300···IF·scl%·=·1·THEN·GOSUB·1970
{MwAo}1310···k$·=·""
{AqBs}1320···WHILE·k$·<>·"C"·:IF·cyc%·<·2·THEN·GOSUB·
        1010·:
{BrBj}1330·····k$·=·INKEY$·:·k$·=·UPPER$(k$)
{EuAl}1340···WEND
{HrAo}1350···fast%·=·0
{HrAn}1360·RETURN
{MmAt}1370·'·get·Julia·set·coordinates
{FkBs}1380··MODE·2:INK·0,0:INK·1,24:PAPER·0:PEN·1:MOD
        E·2
{ElAs}1390··INPUT·"Left·:-·",left
{BqAt}1400··INPUT·"Botten·:-·",botten
{AvAs}1410··INPUT·"Zoom·:-·",zoom
{AwAo}1420··INPUT·"P·:-·",p
{CxAn}1430··INPUT·"Q·:-·",q
{LwAm}1440··mab%·=·0
{JwAn}1450·RETURN
{FuAn}1460·'·main·menu
{GjAt}1470·GOSUB·2090·:·getout%·=·0
{IsAr}1480·WHILE·getout%·=·0
{GvBr}1490···MODE·2:INK·0,0:INK·1,24:PAPER·0:PEN·1:MO
        DE·2
{OoCi}1500···LOCATE·25,2·:·PRINT·CHR$(24)+"·Mandlebro
        t·System·"+CHR$(24)
{PrBt}1510···LOCATE·5,5·:·PRINT·"1·...·Mandlebrot·Set
        ·(·Fast·)"
{IuBv}1520···LOCATE·5,7·:·PRINT·"2·...·Mandlebrot·Set
        ·(·Accurate·)"
{MuBo}1530···LOCATE·5,9·:·PRINT·"3·...·Julia·Set·(·Fa
        st·)"
{MlBs}1540···LOCATE·5,11:·PRINT·"4·...·Julia·Set·(·Ac
        curate·)"
{NqBo}1550···LOCATE·5,13:·PRINT·"5·...·Colour·cycle·(
        ·On·)"
{PjBq}1560···LOCATE·5,15:·PRINT·"6·...·Colour·cycle·(
        ·After·)"
{NkBo}1570···LOCATE·5,17:·PRINT·"7·...·Colour·cycle·(
        ·Off·)"
{AuBs}1580···LOCATE·5,19:·PRINT·"8·...·Scale·lines·(·
        On·)"
{JuBn}1590···LOCATE·5,21:·PRINT·"9·...·Scale·lines·(·
        Off·)"
{EoCn}1600···LOCATE·25,24:·PRINT·CHR$(24)+"·Please·en
        ter·your·choice·or·Q·to·quit·"+CHR$(24)
{OqBn}1610···LOCATE·45,5·:·PRINT·"B·...·Blank·Screen"
{CuBl}1620···LOCATE·45,7·:·PRINT·"Z·...·Zoom·in"
{PoBl}1630···LOCATE·45,9·:·PRINT·"S·...·Summary·Plot"
{MnBt}1640···LOCATE·45,11·:·PRINT·"T·...·3D·transform
        ation"
{KnBl}1650···LOCATE·50,15·:·PRINT·CHR$·(24)+"Blank·..
        .·";
{LnBs}1660···IF·blank%·THEN·PRINT·"ON";·:·ELSE·PRINT·
        "Off";
{HvAp}1670···PRINT·CHR$·(24)
{DnBr}1680···LOCATE·50,17·:·PRINT·CHR$·(24)+"Colour·C
        ycle·...·";
{PoAx}1690···IF·cyc%·=·0·THEN·PRINT·"ON";
{NxBj}1700···IF·cyc%·=·1·THEN·PRINT·"AFTER";
{PkBj}1710···IF·cyc%·=·2·THEN·PRINT·"OFF";
{EkAq}1720···PRINT·CHR$(24)
{GmBs}1730···LOCATE·50,19·:·PRINT·CHR$·(24)+"Scale·li
        nes·...·";
{KlBq}1740···IF·scl%·THEN·PRINT·"ON";·:·ELSE·PRINT·"O
        FF";
{OxAp}1750···PRINT·CHR$(24)
{JvBn}1760···LOCATE·50,21·:·PRINT·CHR$·(24)+"3D·...·"
        ;
{KuBs}1770···IF·trans%·THEN·PRINT·"ON";·:·ELSE·PRINT·
        "OFF";
{JuAq}1780···PRINT·CHR$(24)
{JxBt}1790···k$·=·""·:·WHILE·k$·=·""·:·k$·=·INKEY$·:·
        WEND
{LtBw}1800···IF·k$·=·"Q"·OR·k$·=·"q"·THEN·getout%·=·1
        ·:·k$·=·""
{JwCj}1810···IF·k$·=·"1"·THEN·GOSUB·120·:GOSUB·180:GO
        SUB·230:k$·=·""
{OnCi}1820···IF·k$·=·"2"·THEN·GOSUB·120·:GOSUB·180:GO
        SUB·1170:k$·=·""
{AnCn}1830···IF·k$·=·"3"·THEN·GOSUB·1370·:·GOSUB·180·
        :·GOSUB·230·:k$·=·""
{KuCn}1840···IF·k$·=·"4"·THEN·GOSUB·1370·:·GOSUB·180·
        :·GOSUB·1170:k$·=·""
{JwBn}1850···IF·k$·=·"5"·THEN·cyc%·=·0·:·k$·=·""
{OrBo}1860···IF·k$·=·"6"·THEN·cyc%·=·1·:·k$·=·""
{DmBp}1870···IF·k$·=·"7"·THEN·cyc%·=·2·:·k$·=·""
{JlBp}1880···IF·k$·=·"8"·THEN·scl%·=·1·:·k$·=·""
{JuBn}1890···IF·k$·=·"9"·THEN·scl%·=·0·:·k$·=·""
{EvBw}1900···IF·k$·=·"S"·OR·k$·=·"s"·THEN·GOSUB·2130·
        :·k$·=·""
{CiBx}1910···IF·k$·=·"Z"·OR·k$·=·"z"·THEN·GOSUB·2340·
        :·k$·=·""
{OnBw}1920···IF·k$·=·"B"·OR·k$·=·"b"·THEN·GOSUB·2430·
        :·k$·=·""
{BsBx}1930···IF·k$·=·"T"·OR·k$·=·"t"·THEN·GOSUB·2650·
        :·k$·=·""
{KrBj}1940···IF·k$·<>·""·THEN·SOUND·1,40,20
{NtAj}1950·WEND
{GvAn}1960·RETURN
{HrAr}1970·'·Draw·scale·lines
{AmAw}1980···MOVE·0,200·:·DRAW·640,200,8
{EtAx}1990···MOVE·320,0·:·DRAW·320,400,8
{AsAu}2000···FOR·y%·=·0·TO·400·STEP·20
{JtBm}2010·····MOVE·312,y%·:·DRAW·328,y%,7
{BjAl}2020···NEXT
{JwAw}2030···FOR·x%·=·0·TO·640·STEP·32
{NrAx}2040·····MOVE·x%,196·:·DRAW·x%,204,7
{FmAk}2050···NEXT
{NiAn}2060·RETURN
{PoAk}2070·'·break
{EqAq}2080·GOSUB·2490·:·RUN
{NiAq}2090·'·set·defaults
{IkBu}2100·mab%·=·1·:·cyc%·=·0·:·scl%·=·1·:·fast%·=·1
        ·:·trans%·=·1
{JlBm}2110·left·=·1.8·:·botten·=·0·:·zoom·=·0.00001
{BnAo}2120·RETURN
{HvAp}2130·'·Summary·plot
{DsAo}2140·GOSUB·120
{GsAo}2150·GOSUB·180
{HsBp}2160·ystep·=·zoom·*·8·:·xstep·=·ystep·+·ystep
{LjAq}2170·ry·=·botten
{OiAt}2180·FOR·sy·=·25·TO·1·STEP·-1
{FvAq}2190···rx·=·left
{IoAt}2200···FOR·sx·=·1·TO·20·STEP·1
{EuAo}2210·····GOSUB·920
{OiAw}2220·····PEN·col%·:·LOCATE·sx,sy
{IoAr}2230·····PRINT·CHR$(143);
{GoAo}2240·····GOSUB·1010
{PxAt}2250·····rx·=·rx·+·xstep
{LxAk}2260···NEXT
{IxAu}2270···ry·=·ry·+·ystep
{AvAl}2280·NEXT
{MpAo}2290·k$·=·""
{JqBi}2300·WHILE·k$·<>·"C"·:·GOSUB·1010
{NkAx}2310···k$·=·INKEY$·:·k$·=·UPPER$(k$)
{MqAk}2320·WEND
{LjAn}2330·RETURN
{DiAu}2340·'·Zoom·in·on·previous·image
{HlAl}2350·CLS
{NkAt}2360·INPUT·"·X·marker·:-·",xmark
{JuAt}2370·INPUT·"·Y·marker·:-·",ymark
{FkBs}2380·left·=·left·+·((zoom+zoom)·*·((xmark·-
        ·1)·*·8))
{OjBn}2390·botten·=·botten·+·(zoom·*·((ymark-
        1)·*·10))
{JtAp}2400·zoom·=·zoom·/·10
{OuAn}2410·GOSUB·180
{ElBo}2420·IF·fast%·THEN·GOSUB·230·ELSE·GOSUB·1170
{NoAt}2430·'·Switch·blanking·on/off
{OpBs}2440·IF·blank%·THEN·blank%·=·0·:·ELSE·blank%·=·
        1
{FpAn}2450·RETURN
{PkAr}2460·'·Turn·VDU·output·off
{FiBi}2470·OUT·&BC00,6·:·OUT·&BD00,0
{LwAn}2480·RETURN
{DlAq}2490·'·Turn·VDU·output·on
{DsAq}2500·FOR·f·=·0·TO·40
{ClAu}2510··FOR·g·=·0·TO·12·:·NEXT
{DmAx}2520··OUT·&BC00,1·:·OUT·&BD00,f
{CsBp}2530··OUT·&BC00,2·:·OUT·&BD00,46-(20-INT(f/2))
{CoBs}2540··OUT·&BC00,6·:·OUT·&BD00,25-INT((40-
        f)/1.6)
{LtBu}2550··OUT·&BC00,7·:·CALL·&BD19·:·OUT·&BD00,30-
        ((40-f)/3.2)
{HwAk}2560·NEXT
{ArAo}2570·RETURN
{ItAv}2580·'·3d·transformation·&·plot
{DrBi}2590·nx·=·FIX(sx·+·0.707107·*·(400·-·sy))
{IoBm}2600·ny·=·FIX((·iter%/4·)·+·0.707107·*·(400·-
        ·sy))
{AlBl}2610·nb·=·FIX(1·+·0.707107·*·(400·-·sy))
{CsBj}2620·MOVE·nx,nb·:·DRAW·nx,ny,col%
{FkBi}2630·IF·iter%·=·255·THEN·PLOT·nx,ny,4
{CqAo}2640·RETURN
{NoAr}2650·'·Toggle·3d·on/off
{ArBs}2660·IF·trans%·THEN·trans%·=·0·:·ELSE·trans%·=·
        1
{CjAo}2670·RETURN
```

Storm warning!



Why did James Leach get up at 6am to go to the muddiest part of Bedfordshire? The answer has something to do with a new software label, a slap-up lunch, and an assortment of potent all-terrain vehicles...

I wasn't ready for the world. Not at 6am. In fact, I was rather surprised that the world was there that early. And, amazingly, there were smiling, cheerful people around, who acted as if they got up at this time every day.

I met up with battle-hardened *AA* vet Trenton Webb, and we set off up the motorway. Three hours later we arrived at a particularly muddy field near Leighton Buzzard. There were a lot of four-wheel drive motorbike type-thingies and Land Rovers around. A suspicion of what the day would hold in store began to form in my mind. It was confirmed when we were issued with aerodynamic waterproof suits.

As we were shown to our Honda four-wheel drive quad-bikes, neither Trent or myself showed the slightest fear. Hadn't we just survived an hour on the M25? We fired up the machines and set off at a cracking pace through a wood. I spent the next 40 minutes trying to keep up with Trent, whilst watching his spine compress like an accordion when he hit bumps, rocks and trees.

We eventually stopped and dismounted. Trent was, by now, only three feet tall. Without further ado we went on to the next event. Land Rover driving. Easy, thought both Trent and I. But it was not to be. The course we had to negotiate was akin to the surface of the moon. Our Land Rover nearly ended on its roof several times. Trenton's sound advice to me went along the lines of "Arrgghh! We're all going to die!".



Next were speed trials on more little four-wheel bikes. Trenton's aerodynamic head, painfully thin frame and compressed spinal column reduced his drag co-efficient to the point where he belted along, unassailable. However, next, we had to complete the same circuit, but with a glass of water on a tray in one hand, trying not to spill any, Trenty slowed right down for this. I, on the other hand, didn't care and went round at full speed yet again. Didn't spill a drop (boast, boast).

We were totally unprepared for the horrors to follow. More Land Rover driving, but this time blinc fold. I had to guide Trent around a simpl course and through various gates. He couldn see a thing, and kept babbling about nigh operations in the jungle. Unfortunately, a fev seconds later a vehicle nearby backfired an thinking he was under enemy fire, Trento floored the accelerator (and me). I wrestle with him for control, as we careened acros Bedfordshire. By sheer luck we halted ju before we hit Milton Keynes. Scared? Not a b of it: we were terrified.

Last was the Pilot racing. These were fou wheel-drive racing buggies with scorching pe formance. Trent (by this time fully recovere and myself were strapped in securely, and o we went. The high-speed course containe several jumps, and I could have sworn bounced high enough to become a hazard t low-flying aircraft.

NEW GAMES ON THE BLOCK

With this heady, intoxicating mixture of excitement and naked terror, we had quite overlooked the real reason we were there. The Sales Curve, creator of quality software by appointment to The Queen Mother (didn't you know she had a 464?) was launching a new label. Called Storm, it will be the banner under which *SWIV*, *Saint Dragon* and a whole host of other extremely promising outings will be released.

- ***Saint Dragon*** **is a horizontally-scrolling shoot-em-up with a host of original features. It has attracted much critical acclaim on other machines, and the Storm lads are promising it'll be as good on the Amstrad (but they would, wouldn't they?).**
- ***SWIV*** **is a vertically scrolling shoot-em-up. Storm promises "awesome graphics, hordes of enemies, stunning speed and destructive mayhem." Sounds good.**

Another game soon to be forthcoming from Storm is *Big Run*. You'll have to drive a super-tough rally car in an off-road neck-and-neck race. Hang on? Isn't this what we've just been doing all day? Also to be released in 91 is *Rod-Land*. This is either a nightmare vision of a country peopled entirely by Rod Lawton clones editing everything in sight, or it's a cute game about fairies called Tam and Rit, who carry magic rods whilst negotiating a great many moving platforms. I only hope it's the latter.



● Forthcoming arcade action on the new Storm label

Saint Dragon **and *SWIV* should be out before December. And we'll be first with the news, previews and reviews on all Storm games. In the meantime, both Trent and I are undergoing therapy to conquer a sudden irrational fear of motorised transport.**

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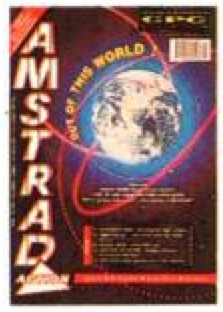
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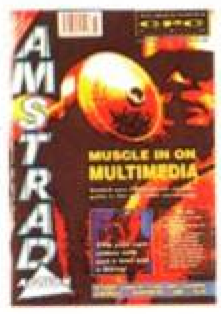
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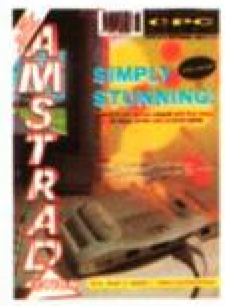
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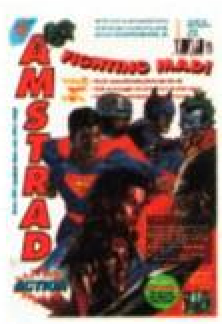
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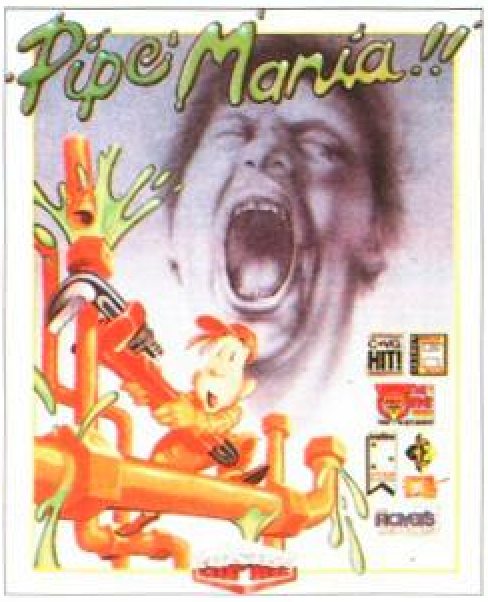


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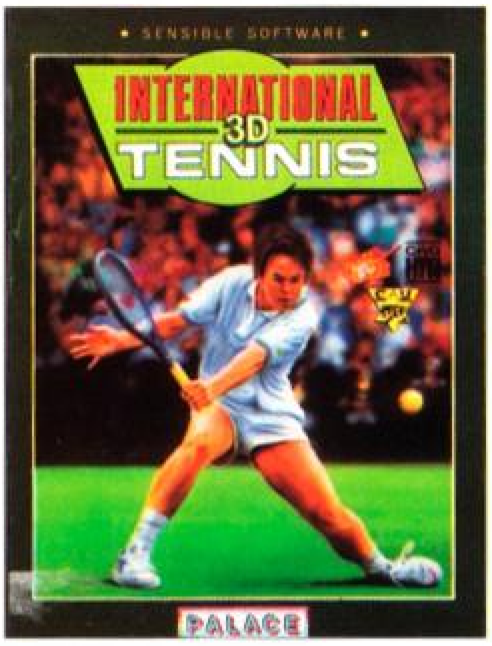
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Cheat Mode

Another bumper crop of hints, tips and pokes from Uncle Phil...

Defenders of the Earth

Having trouble defending the Earth? I bet you are – to say the play was brisk would be an understatement. Tape owners can give themselves a bit of a breather with this poke from Defender-of-the-Street, Graham Smith.

```
{PlAr} 1·'·Defenders·of·the·Earth
{HvAq} 2·'·By·Graham·Smith
{LxAv} 3·'·Infinite·lives·-tape-
{FtAj} 4·'
{CqAt} 10·DATA·11,00,01,43,cd,77
{MkAu} 20·DATA·bc,cd,ff,bb,21,13
{MrAv} 30·DATA·be,22,3f,01,c3,00
{CwAu} 40·DATA·01,21,18,08,22,61
{HjAp} 50·DATA·84,c3,dd,a9
{OsAr} 60·FOR·j=0·TO·27:READ·a$
{ArAt} 70·x=VAL("&"+a$):y=y+x
{MwAt} 80·POKE·j+48640,x:NEXT·j
{GnAs} 90·IF·y<>2693·GOTO·110
{EwAo} 100·CALL·48640
{HuAq} 110·PRINT"data·error
```

● Multiface pokes for tape ***DOE***

Address	Poke	Effect
8461	18|	Inf lives
8462	08|	

Guardian Angel

A last minute poke from Andy Price down in Dunstable, who has stumbled on this new Codemasters game, and chose to offer a number of lives to fight with...

Make mine Aleister Crowley, Genghis Khan and Jack the Ripper.

```
{CnAq} 1·'·Guardian·Angel
{GwAr} 2·'·by·ANDY·PRICE
{FsAj} 3·'

{CpAs} 10·DATA·ED,5B,38,BD,D5
{MoAq} 20·DATA·AA,D1,ED,53,2D
{AlAs} 30·DATA·BE,A5,21,37,BD
{HjAt} 40·DATA·3E,C3,77,23,3E
{PkAr} 50·DATA·25,77,3E,BE,23
{GlAs} 60·DATA·77,21,40,00,E3
{NlAr} 70·DATA·11,00,BB,00,C3
{CnAr} 80·DATA·4A,3A,3E,09,32
{JqAs} 90·DATA·6A,91,41,50,CF
{DrAr} 100·MEMORY·&3000:LOAD"!
{NvAp} 110·FOR·a=&BE00·TO·&BE2C
{IwAu} 120·READ·p$:p=VAL("&"+p$)
{KtAs} 130·POKE·a,p:y=y+p:NEXT
{FxAt} 140·IF·y<>&12A8·THEN·170
{NlAt} 150·INPUT"Number·of·lives";z
{HuAt} 160·POKE·&BE26,z:CALL·&BE00
{FuAu} 170·PRINT"DATA·error":STOP
```

● Multiface poke for ***Guardian Angel***

Address = 916A Poke = No.

Escape from the planet of the Robot Monsters

I know a couple of these robot monsters personally... I work for one (*er, excuse me? – ed*), and the other lives up the road. I'm sure neither would be too pleased to hear me say that, but then that's robot monsters for you. (*Give my regards to the people at the DSS – ed*)

Graham sees them off with the usual zeal using his tape poke.

```
{HvAu} 1·'·Escape·from·the·Planet
{BjAt} 2·'·of·the·Robot·Monsters
{HwAq} 3·'·By·Graham·Smith
{MpAv} 4·'·Infinite·credits,bombs
{JlAp} 5·'·&·Power·-tape-
{FlAt} 6·'·Remove·unwanted·pokes
{FwAi} 7·'
{HlAu} 10·DATA·11,00,80,43,cd,77
{AnAu} 20·DATA·bc,21,0f,be,22,82
{KpAs} 30·DATA·80,eb,e9,cd,b3,00
{CpAt} 40·DATA·3e,3d,32,1a,42,3e
{HpAt} 50·DATA·35,32,46,4b,3e,3a
{BpAq} 60·DATA·32,87,68,c9
{MvAq} 70·FOR·j=0·TO·33:READ·a$
{DsAt} 80·x=VAL("&"+a$):y=y+x
{PxAt} 90·POKE·j+48640,x:NEXT·j
{NkAr} 100·IF·y<>3291·GOTO·150
{OkAs} 110·POKE·48659,0:'credits
{MkAs} 120·POKE·48664,0:'bombs
{HmAv} 130·POKE·48669,201:'power
{ExAs} 140·MODE·1:CALL·48640
{MmAp} 150·PRINT"data·error
```



● Multiface poke for ***Robot Monsters***

Address	Poke	Effect
421A	00	Inf Credit
4B46	00	Inf Bombs
6887	C9	Inf Power

Periscope Up & Snowball in he

Iain Purdie of Gateshead is the chappie tc thank for the next couple of hack attacks *Periscope Up* and *Snowball in Hell*. He gave up some valuable revising time to put these two pokes together. Lets hope it was the right decision to make from your point of view Iain.



```
{HlAs} 10·'Periscope·Up·Cheat
{CqAq} 20·'(c)Iain·Purdie·1990
{EpAm} 30·'Method·1
{KuAo} 40·MEMORY·&54FF
{MxAr} 50·LOAD"periscope",&5500
{ElAl} 60·MODE·1
{NqAo} 70·POKE·&5584,&60
{JuAq} 80·POKE·&5585,&62
{LmAs} 90·FOR·x=&6260·TO·&626F
{NtAt} 100·READ·a$:a=VAL("&"+a$)
{IuAt} 110·y=y+a:POKE·x,a:NEXT
{IlBn} 120·IF·y<>&4A7·THEN·PRINT"Data·error":END
{IuAq} 130·CALL·&551F
{NmAw} 140·DATA·af,32,db,1d,32,5c,1f,32
{KuAw} 150·DATA·56,11,32,81,11,c3,00,01
```



● Multiface pokes for ***Periscope up***:

Address	Poke	Effect
1DDB	00	Inf lives
1F5C	00	Inf scouts
1156	00	Inf fuel
1181	00	Inf air

Things change! When you are a snowball the last place you want to be is in hell! However, fireproofing at the ready (in the shape of infinite lives), comes Iain Purdie – all of a sudden you do stand a chance of winning.

```
{BwAv} 10·'Snowball·In·Hell·Cheat
{CqAq} 20·'(c)Iain·Purdie·1990
{EpAm} 30·'Method·1
{IwAo} 40·MEMORY·&7FFF
{IrAs} 50·LOAD"sload.bin",&8000
{GlAu} 60·MODE·1:POKE·&8014,&C3
{PlAr} 70·POKE·&8015,&2A
{IrAq} 80·POKE·&8016,&80
```



```
{PkAr} 90·FOR·x=&802A·TO·&803B
{MtAt} 100·READ·a$:a=VAL("&"+a$)
{IuAt} 110·y=y+a:POKE·x,a:NEXT
{BtBn} 120·IF·y()&554·THEN·PRINT"Data·error":END
{BmAp} 130·CALL·&8000
{AsBj} 140·DATA·af,32,1a,10,21,0b,80,01,03
{IuBj} 150·DATA·00,11,14,80,ed,b0,c3,14,80
```

● Multiface poke for ***Snowball***. Inf lives:
Address = 101A   Poke = 00

Space Rider

Collecting gems can be a real problem, in a world where everything is out to zap you, (ever been shopping down Oxford street?). Anyway, infinite life makes their discovery a bit easier – infinite cash would be nice! This tape poke is
from Graham (I'm quite a gem myself) Smith.

```
{MlAn} 1·'·Space·Rider
{GlAq} 2·'·Jet·Pack·Co.
{HwAq} 3·'·By·Graham·Smith
{ExAs} 4·'·Infinite·lives
{DoAq} 5·'·Tape·-·Method·1
{FvAj} 6·'
{DiAs} 10·DATA·2a,39,00,22,14
{KtAs} 20·DATA·be,21,0d,be,22
{CvAs} 30·DATA·39,00,c9,f5,af
{OvAs} 40·DATA·32,c4,5f,f1,c3
{JlAs} 50·FOR·j=0·TO·19:READ·a$
{NqAs} 60·x=VAL("&"+a$):y=y+x
{JvAt} 70·POKE·j+48640,x:NEXT·j
{BpAq} 80·IF·y()2068·GOTO·100
{IlAr} 90·CALL·48640:RUN"
{OsAp} 100·PRINT"data·error
```

● Multiface poke for ***Space Rider***

Address	Poke	Effect
5FC4	00	Inf lives

Future Bike

On your bike! In Westminster they spell bike BMW, but this is no place for political satire. In the future your trusty ten-speed will look like *Afterburner*, and lamposts will be made of rubber. Trick cyclist Graham Smith rides to the rescue – the tape version gets infinite lives.

```
{ApAu} 1·'·Future·Bike·Simulator
{HvAq} 2·'·By·Graham·Smith
{EwAs} 3·'·Infinite·lives
{HnAq} 4·'·Tape·-·method·1
{FuAj} 5·'
{PpAu} 10·DATA·3e,a7,32,7f,0e,c3
{KwAt} 20·DATA·13,03,cd,ff,bb,21
{LpAs} 30·DATA·ef,7f,22,60,80
{AqAu} 40·FOR·j=0·TO·16:READ·a$
{KpAs} 50·x=VAL("&"+a$):y=y+x
{NqAu} 60·POKE·j+32751,x:NEXT·j
{MkAt} 70·IF·y()1941·GOTO·100
{NpAq} 80·MEMORY·32222:LOAD"
{JtAn} 90·CALL·32759
{OsAp} 100·PRINT"data·error
```

● Multiface poke for ***Future Bike***

Address	Poke	Effect
0E7F	A7	Inf lives

Fantasy World Dizzy

I can't imagine why we have never had a poke for ***Dizzy 3*** (Fantasy World) – there has been just about everything else for it. Anyway, Belfast's John Girvin has supplied you with this goodie to poach the little fellow with.

```
{CtAq} 1·'DIZZY·3·hacks
{LnAp} 2·'By·John·Girvin
{IkAo} 3·'August·1990
{FtAj} 4·'
{HmAs} 10·OPENOUT"d":MEMORY·&3A42
{JjAr} 20·CLOSEOUT:MODE·1
{HpAr} 30·LOAD"!dizzy3",&3A43
{CwAq} 40·addr=&BE80:RESTORE
{HmAn} 50·READ·byte$
{DkBj} 60·IF·byte$="POACHED"·THEN·CALL·&BE80
{JjAs} 70·POKE·addr,VAL("&"+byte$)
{BmAr} 80·addr=addr+1:GOTO·50
{OuAv} 90·'***·LEAVE·ALL·LINES·IN·***
{KuAv} 100·DATA·21,88,be,0e,ff,c3,16,bd
{LnAw} 110·DATA·3e,c3,21,9e,be,32,76,3a
{LoBi} 120·DATA·22,77,3a,21,40,00,e5,21
{IkAw} 130·DATA·00,bb,e5,c3,4b,3a,3e,c3
{PuAw} 140·DATA·21,b2,be,32,37,bd,22,38
{NiAw} 150·DATA·bd,f3,f1,c9,a4,48,4c,46
{MqAv} 160·DATA·08,5a,3e,a7,32,63,a0,2a
{PqAv} 170·DATA·44,bf,e9,POACHED,4a
```

● Multiface poke for ***Dizzy 3***

Address = A063   Poke = A7

Dynasty Wars

For all in the Joan Collins fan club, here's a nice keypress for ***Dynasty Wars*** from James O'Hara of Selby – Press SHIFT and ZERO when playing and you slip casually into the next designer label, er... level.

Pro Powerboat Sim

David Higgins of Ballygluimin Co. Galway has discovered the keypress cheat for Codemasters' (Jason Falcus and OPTIMUS Software) ***Pro Powerboat Simulator*** – Press ESC to pause the game then by pressing the keys "1","2","Z","X",and "SPACE" you get infinite lives. Well done Dave, I knew Jason had shoved one in there somewhere.

Bubble Ghost

Here are a few tips from Chris Godfrey of Basingstoke: On the start screen move the ghost to the ERE sign and blow the right hand side. A secret passage will appear on the right – take the bubble through and you will gain easy access to other parts of the game, the right hand exit will lead you out altogether. Other tips are to blow the Trumpet and explode the Head. Also, blow the Fan control to turn it off... see if you can find any more.

Turrican

One for ***Turrican*** by Colin Kinsella of Luton – when the game starts move to the extreme left and jump to reveal an extra life, you should also now have infinite credits.

Colin also suggests that on ***Ricochet*** pressing TAB will move you to the next stage and you will have infinite lives.

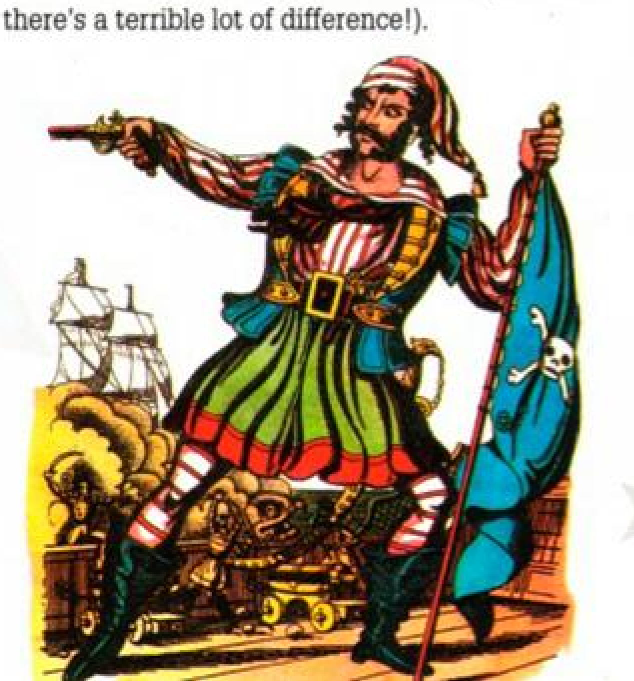
Pirates



Another tip for ***Pirates*** fanatics out there from Rachel Jones in Preston (we don't see a lot of ladies here in *Cheat Mode*), who suggests that if, when you attack a town, the gold has already been spirited away, what to do is march by land to another town, attack that, then march back to the first and attack it again. This time they will yield all their booty. Another clever idea is to only marry the women that are being courted by the Dukes – it will make your rank at the end of the game much higher. To do this, it helps if you pick Wit and Charm as your special skill, but only do it if you are competent enough at fencing to manage without that.

Max's office	58629
Mansion	16349
Dog and bone	38312
Tower	59112
Tunnels	87327
Church	68495

They have also discovered that on ***Rastan*** tape owners can use the old trick of winding the tape forward instead of loading the next level – whatever level you wind to will load in (not that there's a terrible lot of difference!).



TERRAMEX – THE COMPLETE SOLUTION

The complete solution to *Terramex* supplied by John Hillier and Geoff LeGouais is with us at last, for a game that has been around since the days of dear departed Bobby Wade. Will Eyestrain save the world? will the world get eyestrain? Do I know what I'm talking about?

1) Collect the VACUUM.
2) Fly up and collect the ACME EXTENDING BRIDGE.
3) Go right and collect the PARTY MANIFESTO, the SILVER LINING, the UNICYCLE and the UMBRELLA.
4) Go to the far left of the cloud room, stand on the edge of a cloud and parachute down using the UMBRELLA. Collect the GUNPOWDER, reselect the UMBRELLA and jump down.
5) Walk right, avoiding the rain and creatures, then get the FLUTE.
6) Walk right two rooms and use the FLUTE to charm the SNAKES
7) Jump down the well
8) Climb down the pole and exit right.
9) Use the ACME EXTENDING BRIDGE to walk across the bridge, and go right twice.
10) Select the FLUTE jump onto the bridge and go right twice.
11) Jump on the spring.
12) Collect BELLOWS and SPURS. Select FLUTE
13) Jump on to the ledge with the monster (do not touch it), a pole will appear.
14) Descend the pole.
15) Go back to the well pole, climb it and jump up.
16) Walk right and collect the CRICKET BALL.
17) Keep going right until you reach the BALLOON.
18) Select the BELLOWS, guide the BALLOON to the top of the cliff, then swap to a different object.
19) The BALLOON should land. Walk right, collect the RADIATION PILLS and select the UMBRELLA.
20) Jump right, over the cliff edge and walk right to the CANNON.
21) Collect the GUNPOWDER next to the CANNON, and use the larger GUNPOWDER (from the clouds), and walk into the CANNON.
22) Select the UMBRELLA and walk into the hole.

Steps 23-25 depend on which character you have selected. This solution is for FORTISQUE-SMITHE

23) Select the CRICKET BALL and exit left.
24) Walk left until the BALL is thrown.
25) Collect the SECRET FORMULA.
26) Go right four times until you reach the anti-gravity room.
27) Collect the ENERGY CRYSTAL, exit left and position yourself on the lift.
28) Descend on the lift twice.
29) Go right twice, climb the ladder and collect the CUP OF TEA.
30) Exit left twice and climb the ladder.
31) Select the SILVER LINING then walk to the anvil.
32) Wait for the CROSS to be made, then exit right.
33) Climb the ladder, go right, climb the ladder and walk towards the vampire, holding the CROSS.
34) Go right and select the SECRET FORMULA.
35) Walk right, a bridge will appear, exit right.
36) Wait until man (Eyestrain) asks for an object.
37) Give him the SECRET FORMULA.
38) Return to the lift, go up once.
39) Go left and jump all the way over the bridge (walking will cause you to fall)
40) Go left and collect the BATTERY, go left again.
41) Walk into the pit and jump on the trampoline.
42) Collect the LEVER and exit left.
43) Walk off the edge of the rock holding the UMBRELLA.
44) Go left and collect the COAT HANGER then exit left.
45) Put ENERGY CRYSTALS on the tray and jump onto the teleporter.
46) Exit left, select RADIATION PILLS, collect the ATOMIC PILE and go right twice.
47) Select BLUE LEVER and jump into BLUE SOCKET (touching the lever will result in the bucket in the next room being activated or de-activated).
48) Exit right and wait for the bucket to carry you across the pit.
49) Exit right three times, collect the RED BUTTON.
50) Return to the Teleporter.
51) Exit left, position yourself on the lift and descend three times.
52) Climb the ladder, go right, climb the ladder, go right and climb the ladder, go right and cross the pit.
53) Give Eyestrain the objects he asks for.
54) Game complete – Watch the final sequence!

Mega-Buck$

John Hillier and Geoff Legouais have been reading *AA31* (again) and have phoned in the telephone numbers for ***Mega-Buck$***, just in case there are any gamesters out there still tearing their hair out.

Max's office	58629
Mansion	16349
Dog and bone	38312
Tower	59112
Tunnels	87327
Church	68495

They have also discovered that on ***Rastan*** tape owners can use the old trick of winding the tape forward instead of loading the next level. Yup, it seems that whatever level you wind to will load in (not that there's a terrible lot of difference!).



MiG 29 Soviet Fighter

How about some tips for Codemasters' ***MiG 29 Soviet Figher*** from Chris Martin of Horley – Fly as low as possible and keep moving back and forth from left to right. This way you very rarely get blown up. When you get an H-Bomb, do not press Fire immediately, but save it until the helicopter comes into view.

If you miss the H-bombs there's no need to worry, simply change the weapon to missile, using SPACE then press Fire when the chopper appears.

On the bonus levels, staying as low as possible will give you more chance of picking up parachutes.

E-Motion

A couple of months ago we had a cheat for ***E-Motion***, now Darren Adams of London has expanded on it – Type MOONUNIT on the title screen then "R" will advance 1 level, "F" will advance 10 levels, "T" moves back 1 level, "G" moves back 10 levels and "V" will self destruct (back to level 1). Thanks Darren.

Lost and Found

Here's something a bit different for you to think about... There's this geezer down in Essex who has plenty of games lying around collecting dust because he can't find cheats for them. Three of them are ***Flash Gordon***, ***Catch 22*** and ***Werewolves of London***, which sadly never found their way into *Cheat Mode*. Can anyone out there find a poke or a keypress etc. for these? (rest assured, a treasure trove awaits!). And while we're about it, any other special requests? (get the mailbags ready) this might be just your chance to get the poking you deserve!

MYTH – HISTORY IN THE MAKING

Kevin Hoy of Bootle in Mersyside has been mething with *Myth – History in the Making* and produced the complete solution to this absorbing game. Now we've got extra pages, Kev, it will all go in together!

Stage 1 The Road to Hell

- Kick the two jars on either side at the start and collect the contents.
- Go left, select FIREBALL and shoot the hanging corpses
- Smash the jars and collect the contents.
- Skeletons will drop from above, shoot them and collect the skulls.
- Go left and immediately shoot the GARGOYLE, use HEART to protect yourself.
- When defeated, shoot the ORB until it falls, then collect it.
- Go right shooting corpses and collecting articles.
- Use the HEART when confronted by the GARGOYLE and move directly underneath.
- Select FIREBALL then jump in between him spitting and shoot him.
- Fire at the ORB until it falls then collect it.
- Go left and drop down.
- Go right, shoot the hanging corpses, go right and collect the ORB.
- Go left, shooting kicking and collecting all you find, and drop down.
- Make sure you have collected ten SKULLS then go left.
- Select SKULLS and throw ten into the fiery pit, select FIREBALL
- The DEVIL will rise – shoot him repeatedly until he explodes.
- A platform will appear, collect the TRIDENT and the ORB.
- Go right collecting, and at a second fiery pit a platform will appear.
- Select the TRIDENT and go right, shoot the DRAGON repeatedly.
- Collect The KEY and move left, climbing upwards to the DOOR.
- Select the KEY. The door will open – move through the DOOR.
- Select the HEART, drop from the ledges and collect the ORB.
- Go right out of the door and drop from the ledge.
- Go to the right, collect the MASTER ICON. Return to the start position (teleport pad) and select the MASTER ICON.

Stage 2 Greece Four Hundred Years BC.

- Destroy the STATUE with your sword and collect the FIREBALL and ORB
- Ignore the jar then go right collecting articles.
- Hit the statue of Achilles on the heel six times and collect the bag.

(Now is this Achilles or is it Perseus?)

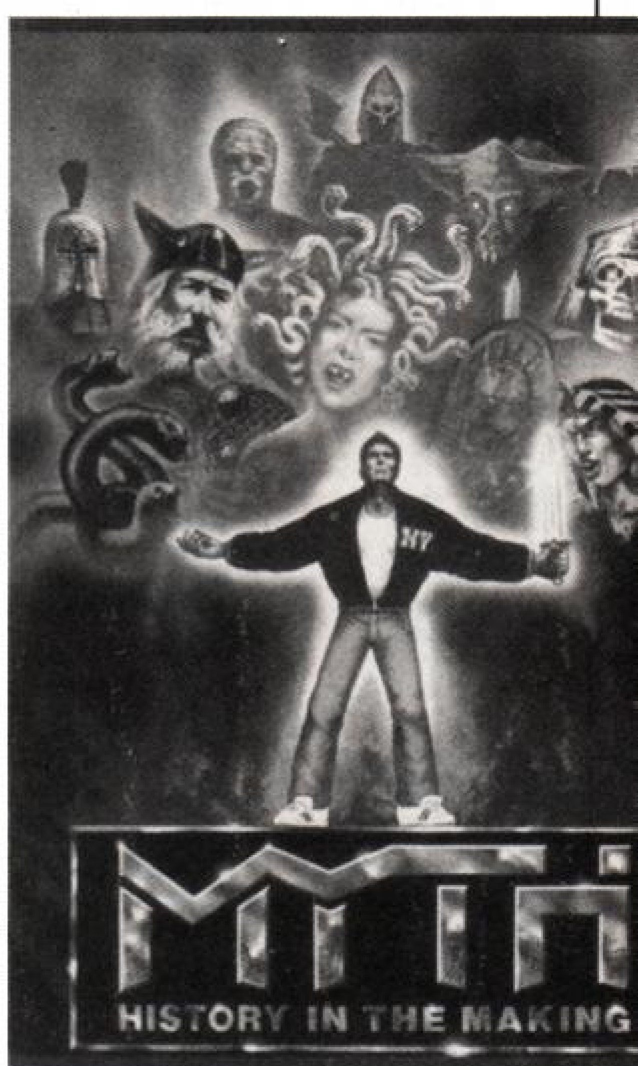
- Go right break the jar and chase the dove (extra life)
- Go right and cautiously move forward – the lady will transform.
- When she does, hide behind the pillar and wait for her to rise.
- Move left off the screen and back again she will have gone.
- Go right and collect a DOVE and an ORB, then right again and collect a third.
- Move right and jump to the TEMPLE and kneel (left + fire + Sword Icon)
- You are transported to MEDUSAS. Protect yourself with your SHIELD.
- Move forward, cut off her head with the sword, select the BAG.
- Collect MEDUSA HEAD then the ORB.
- Go left then right to encounter the HYDRA and select the MEDUSA HEAD.
- Destroy the heads, collect the ORB and return to TEMPLE and kneel.
- Collect the MASTER ICON and return to the teleport pad.

Stage 3 Scandinavia Five Hundred AD

- Kill all the Vikings until one leaves a FIREBALL, select it.
- Go right, collect the ORB and get transported ashore.
- Jump up to the jar and collect the contents.
- Go left, shoot the TROLLS and collect the KNIVES
- Keep moving left and collecting until you find the ORB
- Collect the LIGHTNING and the ORB.
- Go right and climb the platforms to collect the SCROLL
- Go right and use the SCROLL to make rain and put out the FIRE
- Release the LADY and she will reveal a KEY – collect it.
- Go right and collect the ORB.
- Go right collecting and you will confront the DRAGON
- Select the KNIVES, get close between fiery breaths and destroy it.
- Move right and collect the ORB.
- Go right and select the KEY to lower the DRAWBRIDGE.
- Enter the Castle and use the LIGHTNING to destroy ODIN. Shoot his feet.
- Collect the ORB, go left, collect the MASTER ICON in the forest.
- Return to the Teleport pad.

Stage 4 Egypt Three thousand BC.

- Don't enter the water. Select the GUN, go right and shoot twice.
- Enter the Pyramid, go down the steps and drop off the ledge.
- Below there are four doors (1 nearest the wall and 4 farthest away)
- Enter door 3 first by crouching (same as kneeling in Greece).
- Jump across the pit and collect the MASK from the chest.
- Jump over the spikes, kick the jar and collect the GUN.
- The floor is boobytrapped, so jump right and collect the ANKH.
- Move to between the two sarcophagus's and select the ANKH (extra lives)
- Return to the four doors and select door 2
- Watch out for falling slabs, collect the FIREBALL and the GUN
- Move to the next screen and collect the ORB.
- Move to the next screen and jump the pit – don't land on the first slab.
- Collect the EYE from the chest, go to the next screen and get the JAR.
- Return to the doors and enter number 1. Watch out for falling slabs.
- Collect the GUN, move to the next screen and collect the ORB.
- Carry on to the next screen, collect the FIREBALL and the SECOND JAR.
- Return to the doors, enter number 3 and jump left.
- Go to the next screen, collect the ORB, and on to collect the THIRD JAR
- Return to the doors and select number 4
- Avoiding spikes and falling slabs, go to the next screen and collect the ORB.
- Carry on walking right to the end of the room and collect the FOURTH JAR.
- Return to the doors and the EYE under door 5 should now be flashing.
- Select the EYE and you will transport to a corridor.
- Shoot the MUMMIES with your GUN and walk right to the SARCOPHAGUS
- Put down the JARS, then enter the next room and select the MASK.
- Fire at the face of KING TUT and he will be destroyed.
- Collect the final ORB, go back to the teleport and THAT'S IT.



BLOODWYCH MULTIFACED

The ultimate in Multiface pokes for *Bloodwych* on disk has arrived from Paul Stuart Williams of Broomhall. Start by selecting one of each of the four groups and colours then save this party to disk.

You'll have to calculate the pokes for yourself from this table. What you need to do is add the start number of the character to the poke number which will supply the effect you are after, then poke that address with the poke number – got it?

(Character 2 = 6263 + 18 (ARMOUR) = 627B poke with 1A for CRYSTAL PLATE).
Remember the numbers are HEXADECIMAL (oooooer!), if you have difficulty adding
in hex use the computer... PRINT HEX$(&6263+&18) etc.

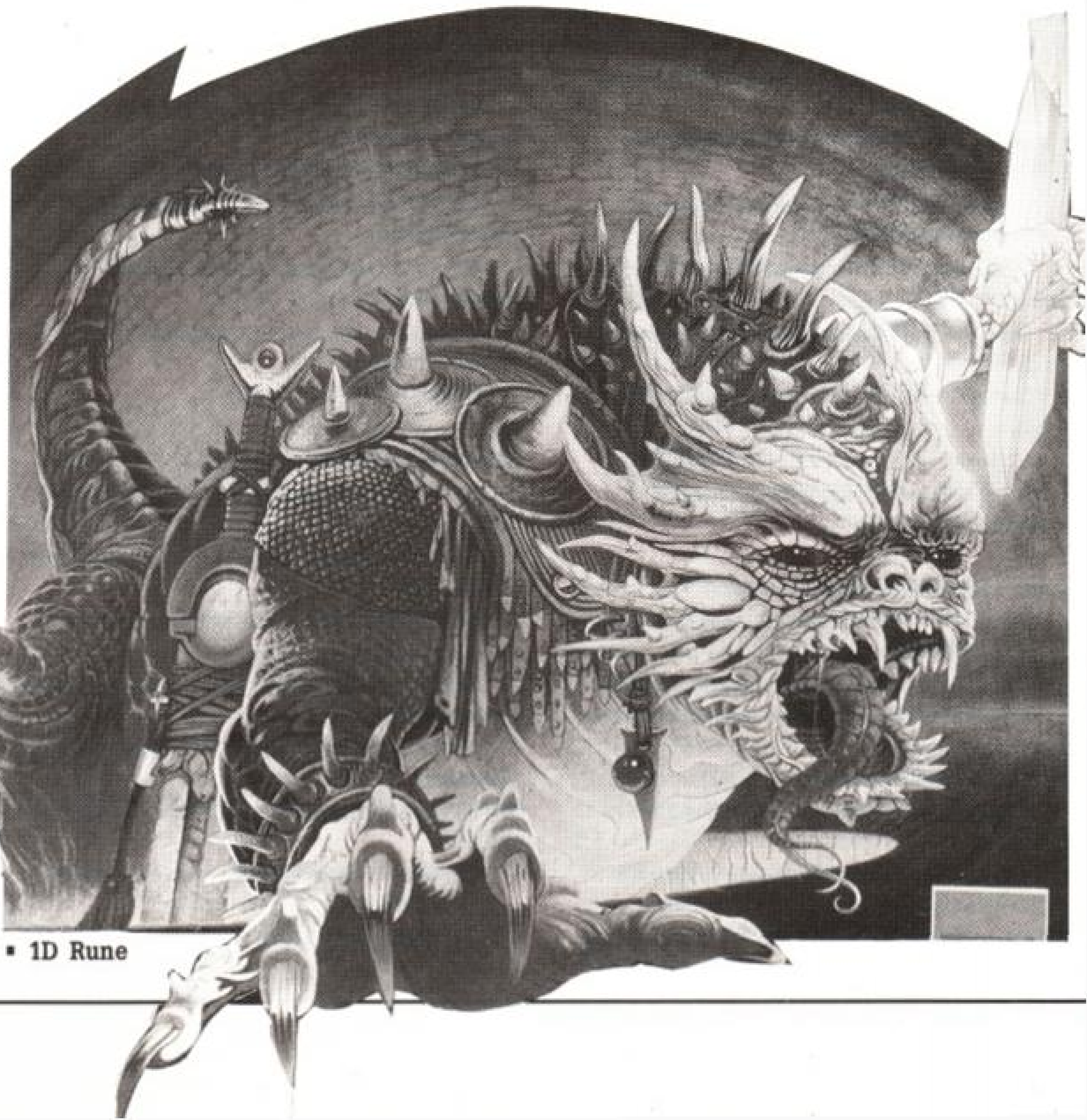
Character 1 info starts at 61FC
Character 2 info starts at 6263
Character 3 info starts at 62CA
Character 4 info starts at 6331

Address	Poke	Effect	
Start + 00	63	Level	= 99
+ 01	63	Strength	= 99
+ 02	63	Agility	= 99
+ 03	63	Intelligence	= 99
+ 04	63	Charisma	= 99
+ 05	FF}	Hit points	= 255
+ 06	FF}		
+ 07	63}	Vitality	= 99
+ 08	63}		
+ 09	FF	Food	= 255
+ 0A	63}	Spell points	= 99
+ 0B	63}		
+ 14	32-34	If bow is used	
+ 16	No.	Weapon or arrows	
+ 17	No.	Weapon	
+ 18	No.	Armour	
+ 19	No.	Shield	
+ 1B	No.	Pouch 1	
+ 1C	No.	" 2	
+ 1D	No.	" 3	
+ 1E	No.	" 4	
+ 1F	No.	" 5	
+ 20	No.	" 6	
+ 21	No.	" 7	
+ 26	FF	All spells page 1	
+ 27	FF	All spells page 2	
+ 28	FF	All spells page 3	
+ 29	FF	All spells page 4	

The list of Nos. and what you get by poking into start + 16 to + 21.

01 Coins ▪ 02 Keys ▪ 03 Normal arrows ▪ 04 Elf arrows ▪ 05 Drink 1 third ▪ 06 Drink 2 third ▪ 07 Drink full ▪ 08 Apple 1 third ▪ 09 Apple 2 third ▪ 0A Apple full ▪ 0B Egg green ▪ 0C Egg blue ▪ 0D Egg red ▪ 0E Snake slime green ▪ 0F Brimstone ale yellow ▪ 10 Dragon broth red ▪ 11 Moon elixir blue ▪ 12 Leathers ▪ 13 Chain mail ▪ 14 Plate mail ▪ 15 Mithril chain ▪ 16 Mithril plate ▪ 17 Adamant chain ▪ 18 Adamant plate ▪ 19 Crystal chain ▪ 1A Crystal plate ▪ 1B Hide shield ▪ 1C Buckler ▪ 1D Rune shield ▪ 1E Large shield ▪ 1F Moon shield blue ▪ 20 Dragon shield green ▪ 21 War shield red ▪ 22 Dagger ▪ 23 Stealth blade ▪ 24 Short sword ▪ 25 Sword ▪ 26 Mithril sword ▪ 27 Flesh bane ▪ 28 Demon blade ▪ 29 Ace of swords ▪ 2A Battle axe ▪ 2B Mithril axe ▪ 2C Trolls axe ▪ 2D Brainbiter axe ▪ 2E Death bringer axe ▪ 2F Staff ▪ 30 Battle staff ▪ 31 Power staff ▪ 32 Long bow ▪ 33 Frost bow ▪ 34 Cross bow ▪ 35 Snake gem ▪ 36 Chaos gem ▪ 37 Dragon gem ▪ 38 Moon gem ▪ 39 Tan gem ▪ 3A Bluish gem ▪ 3B Snake key green ▪ 3C Moon key blue ▪ 3D Dragon key red ▪ 3E Chaos key yellow ▪ 3F Chromatic key ▪ 40 Snake wand ▪ 41 Chaos wand ▪ 42 Dragon wand ▪ 43 Mood wand ▪ 44 Heal wand ▪ 45 Yes ring ▪ 46 Snake ring ▪ 47 Chaos ring ▪ 48 Dragon ring ▪ 49 Moon ring ▪ 4A Player 1 RIP ▪ 4B Player 2 RIP

● And just to finish it (and me!) off, Paul has supplied a poke to change your location when you get stuck. There are two addresses: 613C, the Left/Right locator, and 613D, the Forward/Backward one. How to change is dependent on where you are at the time – Suppose you are 0A on the left/right and 17 on the forward/back, and you want to move 1 position right, POKE 613C with 0B, if you want to move 1 position forward poke 613D with 18, to move 1 space back poke 613D with 16, etc. Clever, eh?, Fine work Paul... (my head aches!)



After the war	Password	AA60
Agent x 2	Password	AA53
Airborne ranger	Tape Poke	AA58
Airborne ranger	Disk Poke	AA59
Altered beast	Playing Tip	AA57
Army moves	Password	AA53
Astro marine corps	Keypress	AA60
Astro marine corps	Password	AA60
Atv simulator	Tape Poke	AA62
Batman 3d	Disk Poke	AA59
Batman the movie	Keypress	AA53
Batman the movie	Map	AA53
Batman the movie	Disk Poke	AA57
Batman the caped crusader	Solution	AA61
Bedlam	Keypress	AA57
Beyond the ice palace	Tape Poke	AA56
Black tiger	Disk Poke	AA60
Blade warrior	Tape Poke	AA61
Bloodwych	Playing Tip	AA62
Bmx freestyle	Keypress	AA62
Bombfusion	Tape Poke	AA58
Bounty hunter	Keypress	AA59
Bubble ghost	Playing Tip	AA63
Buggy boy	Tape Poke	AA61
Cabal	Tape Poke	AA53
Castle master	Disk Poke	AA59
Castle master	Solution	AA59
Chase hq	Keypress	AA56
Cholo	Password	AA53
Classic arcadia	Tape Poke	AA56
Continental circus	Disk Poke	AA57
Count duckula	Tape Poke	AA60
Cybernoid	Keypress	AA55
Cybernoid 2	Keypress	AA55
Defenders of the earth	Tape Poke	AA63
Dizzy 3	Solution	AA54
Dizzy 3	Map	AA58
Dizzy 3 (fantasy world)	Tape Poke	AA63
Double dragon	Tape Poke	AA61
Dragon spirit	Tape Poke	AA57
Dragons lair 2	Tape Poke	AA60
Druid	Keypress	AA55
Dynasty wars	Keypress	AA63
E-motion	Keypress	AA61
E-motion	Keypress	AA63
Elven warrior	Tape Poke	AA56
Eqiunox	Keypress	AA62
Escape from robot monster	Tape Poke	AA63
Exolon	Keypress	AA55
Frankenstein junior	Tape Poke	AA56
Future bike simulator	Tape Poke	AA63
Ghostbusters 2	Playing Tip	AA54
Ghostbusters 2	Solution	AA55
Ghouls 'n ghosts	Disk Poke	AA58
Grand prix simulator	Keypress	AA58
Grand prix 2	Keypress	AA61
Grid iron	Keypress	AA60
Guardian angel	Tape Poke	AA63
Hard drivin'	Tape Poke	AA54
Hard drivin'	Disk Poke	AA58
Heroes of the lance	Solution	AA61
Hoppin' mad	Tape Poke	AA58
Hotrod	Disk Poke	AA60
Human killing machine	Keypress	AA60
Ikari warriors	Tape Poke	AA58
Impossamole	Keypress	AA60
Indy jones + last crusade	Keypress	AA52
Indy jones + last crusade	Keypress	AA55
Into the eagles nest	Keypress	AA55
Into the eagles nest	Keypress	AA57
Italian supercar	Tape Poke	AA59
Italy '90	Keypress	AA61
Jinks	Keypress	AA57
Joe blade 3	Tape Poke	AA55
Joe blade 3	Playing Tip	AA58
Jungle warfare	Keypress	AA61
Klax	Disk Poke	AA61
Knightmare	Playing Tip	AA62
Laser squad	Playing Tip	AA56
Laser squad	Tape Poke	AA62
Last ninja 2	Keypress	AA60
Last ninja 2	Solution	AA62
Little puff	Keypress	AA58
Little puff	Solution	AA60
Lost caves	Tape Poke	AA54
Lost caves	Tape Poke	AA55
Mega buck$	Password	AA63
Mig 29 soviet fighter	Playing Tip	AA63
Moto cross simulator	Tape Poke	AA62
Mr heli	Disk Poke	AA53
Mutant fortress	Tape Poke	AA55
Myth	Playing Tip	AA57
Myth	Disk Poke	AA60
Myth history in the makin	Solution	AA63
Navy moves	Tape Poke	AA51
Newzealand story	Tape Poke	AA53
Newzealand story	Keypress	AA55
Nuclear heist	Keypress	AA59
Olli and lissa 3*	Tape Poke	AA57
One man and his droid	Password	AA53
Operation gunship	Tape Poke	AA52
Operation wolf (lightgun)	Keypress	AA56
P47 thunderbolt	Keypress	AA56
Periscope up	Tape Poke	AA63
Pipe mania	Password	AA59
Pipe mania	Disk Poke	AA61
Pirates	Playing Tip	AA59
Pirates	Playing Tip	AA63
Powerdrift	Tape Poke	AA61
Pro boxing simulator	Tape Poke	AA61
Pro power boat simulator	Tape Poke	AA62
Pro power boat simulator	Keypress	AA63
Psycho hopper	Tape Poke	AA59
Quattro power pack	Tape Poke	AA62
Rainbow islands	Playing Tip	AA61
Rambo 3	Tape Poke	AA60
Rastan	Playing Tip	AA63
Real ghostbusters	Keypress	AA57
Renegade 3	Keypress	AA51
Renegade 3	Keypress	AA52
Rex	Tape Poke	AA62
Ricochet	Keypress	AA63
Rogue	Tape Poke	AA61
Ruff and reddy	Tape Poke	AA63
Saigon combat unit	Password	AA55
Saigon combat unit	Tape Poke	AA55
Shinobi (AAdemo)	Tape Poke	AA52
Snowball in hell	Tape Poke	AA63
Soldier of light	Tape Poke	AA59
Space harrier	Tape Poke	AA56
Space harrier 2	Disk Poke	AA61
Space rider jet pack co.	Tape Poke	AA63
Spindizzy	Keypress	AA60
Starion	Password	AA53
Stormlord	Keypress	AA55
Strider	Keypress	AA59
Stunt bike simulator	Keypress	AA57
Super stuntman	Keypress	AA55
Supertank simulator	Keypress	AA56
Supertank simulator	Tape Poke	AA56
Tempest	Keypress	AA57
Terramex	Solution	AA63
Three weeks in paradise	Keypress	AA62
Thrust	Keypress	AA59
Thunderbirds	Map	AA51
Thunderbirds	Playing Tip	AA51
Thunderbirds	Solution	AA58
Toobin'	Disk Poke	AA57
Turbo boat simulator	Keypress	AA57
Turbo chopper simulator	Keypress	AA58
Turrican	Tape Poke	AA62
Turrican	Playing Tip	AA63
Twin turbo v8	Tape Poke	AA62
Typhoon	Tape Poke	AA55
Untouchables	Keypress	AA55
Untouchables	Playing Tip	AA57
Vampire	Tape Poke	AA54
War machine	Tape Poke	AA52
Who dares wins	Tape Poke	AA52
Wizard willy	Tape Poke	AA54
Wonderboy	Tape Poke	AA60
Wonderboy	Playing Tip	AA60
Xenon	Tape Poke	AA51
Xout	Keypress	AA59
Yogis great escape	Tape Poke	AA60

MULTIFACE POKES

After the war	(t) lives	AA58
Airborne ranger	(t) f.aid	AA58
Airborne ranger	(d) f.aid	AA59
Apprentice	(t) mult	AA59
Army moves	(d) lives	AA59
Artura	(t) energ	AA58
Astro marine corps	(t) grena	AA62
Atf	(-) lives	AA59
Atv simulator	(t) time	AA62
Ball crazy	(t) lives	AA61
Barbarian 2	(t) lives	AA58
Batman (3d version)	(d) mult	AA59
Batman the movie	(-) grena	AA55
Batman the movie	(-) grena	AA56
Batman the movie	(d) mult	AA57
Battle of britain	(t) fuel	AA60
Batty	(t) lives	AA55
Batty	(t) lives	AA56
Beyond the ice palace	(t) mult	AA56
Bigfoot	(t) lives	AA59
Bigfoot	(t) lives	AA61
Bionic commando	(-) lives	AA59
Blade warrior	(t) mult	AA58
Blade warrior	(t) mult	AA61
Bloodwych	(d) mult	AA63
Bobby baring	(t) helps	AA58
Bombfusion	(t) mult	AA58
Bombjack	(t) mult	AA57
Bombjack 2	(t) lives	AA57
Brian bloodaxe	(t) lives	AA58
Bronx street cop	(t) mult	AA60
Bubble bobble	(d) lives	AA58
Bubble bobble	(t) lives	AA58
Buggy boy	(t) time	AA55
Buggy boy	(t) time	AA56
Buggy boy	(t) time	AA61
Chase hq	(d) mult	AA55
Chase hq	(t) mult	AA55
Chase hq	(d) mult	AA56
Chase hq	(t) mult	AA56
Chicago 30s	(t) lives	AA60
Cholo	(t) invul	AA61
Cobra	(t) shots	AA57
Combat school	(t) timer	AA55
Combat school	(t) timer	AA56
Continental circus	(d) conti	AA57
Count duckula	(t) enemy	AA60
Crazy cars	(t) time	AA58
Critical mass	(t) craft	AA60
Daley thompson	(t) lives	AA58
Dan dare	(t) lives	AA61
Dan dare 3	(t) mult	AA62
Defenders of the earth	(t) lives	AA63
Deflektor	(t) mult	AA57
Desolator	(-) lives	AA59
Dizzy 3 (fantasy world)	(t) lives	AA63
Doodlebug	(t) lives	AA58
Double dragon	(t) lives	AA61
Dragons lair	(-) lives	AA59
Dragons lair	(d) lives	AA62
Druid	(t) energ	AA61
Dynamite dux	(d) credi	AA58
Dynasty wars	(d) energ	AA62
Elite	(-) mult	AA53
Escape from robot monster	(t) mult	AA63
Fast food	(t) lives	AA55
Fast food	(t) lives	AA56
Finders keepers	(t) lives	AA59
Firetrap	(t) lives	AA57
Forgotten worlds	(-) mult	AA53
Frankenstein junior	(t) mult	AA56
Future bike simulator	(t) lives	AA63
Future knight	(-) lives	AA59
Game over	(t) lives	AA55
Game over	(t) lives	AA56
Game over 2	(d) lives	AA60
Garfield	(t) sleep	AA61
Get dexter	(t) energ	AA62
Ghouls 'n ghosts	(d) lives	AA55
Ghouls 'n ghosts	(d) lives	AA56
Glider rider	(t) mult	AA60
Goonies	(t) lives	AA61
Guardian angel	(t) lives	AA63
Gunsmoke	(t) lives	AA60
Head over heels	(t) mult	AA60
Hoppin' mad	(t) lives	AA58
Hotrod	(d) fuel	AA60
I ball	(t) lives	AA58
Ikari warriors	(t) mult	AA57
Indy jones + last crusade	(t) mult	AA61
Inside outing	(t) mult	AA58
Italian supercar	(t) mult	AA59
Joe blade 3	(t) baddi	AA55
Joe blade 3	(t) mult	AA55
Joe blade 3	(t) baddi	AA56
Joe blade 3	(t) mult	AA57
Kane	(t) helps	AA58
Karnov	(t) lives	AA59
Klax	(d) credi	AA61
Knight force	(d) mult	AA58
Krakout	(t) lives	AA61
Licence to kill	(t) lives	AA59
Licence to kill	(d) mult	AA60
Live and let die	(t) fuel	AA62
Lost caves	(t) level	AA55
Mask	(t) damag	AA61
Mega apocalypse	(t) lives	AA58
Mega apocalypse	(t) lives	AA59
Metal army	(t) lives	AA61
Mig 29 soviet fighter	(t) mult	AA57
Mikie	(t) invul	AA57
Motocross simulator	(t) bikes	AA62
Myth	(d) mult	AA60
Nemesis	(d) mult	AA62
Ninja spirit	(d) credi	AA60
Nodes of yesod	(t) lives	AA59
Olli and lissa 3	(t) mult	AA57
Operation thunderbolt	(t) lives	AA55
Operation gunship	(t) mult	AA56
Operation thunderbolt	(t) lives	AA56
Outrun	(t) time	AA60
Palitron	(t) energ	AA58
Parabola	(t) lives	AA62
Periscope up	(t) mult	AA63
Plasmatron	(t) damag	AA62
Powerdrift	(t) credi	AA61
Pro boxing simulator	(t) lives	AA61
Pro power boat simulator	(t) mult	AA62
Prohibition	(t) lives	AA62
Psycho hopper	(t) mult	AA59
Psycho pigs uxb	(-) lives	AA59
Quattro power pack	(t) mult	AA62
R-type	(-) credi	AA55
R-type	(-) credi	AA56
R-type	(-) mult	AA59
Race against time	(t) time	AA62
Rainbow islands	(d) resta	AA57
Rambo 3	(t) cont	AA60
Rasputin	(t) healt	AA58
Rastan	(t) lives	AA61
Red heat	(t) mult	AA59
Rex	(t) lives	AA62
Rick dangerous	(t) mult	AA62
Ricochet	(t) lives	AA58
Roadblasters	(t) mult	AA58
Rogue	(t) energ	AA61
Rolling thunder	(t) mult	AA61
Ruff and reddy	(t) mult	AA63
Sacred armour of antiriad	(t) mult	AA62
Saigon combat unit	(t) mult	AA55
Savage	(t) lives	AA61
Scooby doo	(t) ghost	AA58
Scooby doo	(t) lives	AA59
Sdi	(t) lives	AA58
Shadow skimmer	(t) lives	AA58
Shinobi	(-) lives	AA55
Shinobi	(-) lives	AA56
Sidearms	(-) lives	AA59
Silkworm	(t) lives	AA62
Slap fight	(t) lives	AA60
Snowball in hell	(t) lives	AA63
Soldier of light	(t) lives	AA59
Sonic boom	(d) credi	AA60
Space harrier	(t) fire	AA56
Space harrier 2	(d) lives	AA61
Space rider jetpack co.	(t) lives	AA63
Speedzone	(t) lives	AA62
Split personalities	(t) mult	AA58
Stormlord	(t) invul	AA60
Strider	(t) energ	AA61
Subteranean stryker	(t) lives	AA61
Tau ceti 2	(-) mult	AA52
Techno cop	(t) mult	AA60
The hit squad	(t) lives	AA56
Thunderbirds	(t) lives	AA61
Thundercats	(t) lives	AA60
Timescanner	(d) balls	AA59
Toobin'	(d) credi	AA57
Turbo esprit	(t) lives	AA55
Turbo esprit	(t) lives	AA56
Turbo outrun	(-) credi	AA59
Turrican	(t) mult	AA62
Twin turbo v8	(-) mult	AA58
Twin turbo v8	(t) mult	AA62
Typhoon	(t) lives	AA55
Ultima ratio	(t) lives	AA61
Untouchables	(t) times	AA55
Untouchables	(t) times	AA56
Victory road	(t) lives	AA60
Vigilante	(-) lives	AA55
Vigilante	(-) lives	AA56
Vindicator	(-) mult	AA55
Vindicator	(-) mult	AA56
Vixen	(-) lives	AA59
Warlock	(t) lives	AA58
Wec le mans	(t) time	AA55
Wec le mans	(t) time	AA56
Wizard willy	(t) lives	AA56
Wonderboy	(t) lives	AA60
Wriggler	(t) lives	AA61
Xcel	(t) lives	AA61
Xevious	(-) lives	AA59
Xybots	(t) credi	AA62
Yabba dabba doo	(t) lives	AA59
Yie ar kung fu	(t) energ	AA57
Yogis great escape	(t) mult	AA60
Zolyx	(t) lives	AA58

Free for all



That woman Caroline Lamb is back again, with her usual mix of news, reviews and acid observation from the bustling public domain scene...

This month I have some more legal clarification stuff first about a topic that always seems to arouse controversy, if not general confusion.

I've been asked by an angry *AA* reader (who has also written to *New Computer Express*) about the legality of PD Libraries or User Clubs charging for PD disks: "Public Domain software is supposed to be free, isn't it?" So why aren't PD libraries giving the stuff away?"

OK, logic dictates that this ought, of course, to be true. You *should* be able to send off a blank disk to any outfit that claims to be a PD organisation and it should simply copy all the programs that you want onto your disk for zero wonga. After all, it's all Public Domain stuff and you are a certified member of the Public... true?

Well, the rule that governs Public Domain software distribution says that programs are not to be sold for profit. However, it does not mean that the distributor should make a loss. In other words, although a public domain library must not charge for the software itself, there's no reason why it shouldn't cover its duplication and postage costs. If it didn't, how could it keep going?

That's enough on that for the time being, but look forward to a special article soon about just how much it does cost to run (and set up in the first place!) a public domain library. Just got to do some research first...

A heartening tale

This month I've received a lovely letter from a young chap called David Carter who runs a PD Library of his own. He seems to have a somewhat unhealthy predeliction, though, for "Teenage Mutant Ninja Hero Penguins." The letter speaks for itself so I'll print it, without explanation, just for you:

"Dear Caroline, thanks for the advice in last month's column, it proved invaluable. More about that later. Penguin Software is the new name for my Library, DPD. I decided to change the name as the original was a little too clo to that of another library.

The one thing that has really boosted t world of Amstrad PD has to be the sudde appearance of Demos. These programs a totally useless but completely amazing to lo at. They've also got brilliant soundtracks most of which are taken from games... a therein lies the point.

Up until a short while ago, I had a large co lection of these in my library that filled thr disks (on both sides.) Now though, I've wit drawn all of them from my PD list.

The reason for doing this was a telephor call I made to FAST (0628 660377) after readi advice in the *Free For All* column in Octobe *AA* stating: 'it is illegal (either free or for prof to pass on copies of programs that conta original, copyrighted sections of code.'

FAST are of the same opinion and I w advised that keeping the demos in my Library could result in legal action being tak against me. Ouch!

Since then, I've been working in co-oper

BORE WARS

Just recently quite a few people have been complaining about those who either order their Public Domain programs and then use them to start up new libraries or use them to swell existing libraries' catalogues. Their response has been to ban people who run other PD Libraries from ordering their collection or demand that they trade programs K for K.

The plain fact of the matter is, however, that if you start a library and say that the programs within it are Public Domain (even if you've written them yourself) then you have no right to grumble unless someone is breaking the copyright rules that govern the public domain sector.

So before you donate something to the Public Domain, think carefully! You are giving permission for the program to be freely copied and distributed – provided there are no alterations made to it without your prior consent and provided it is not re-sold for profit. You can't impose any other conditions of your own.

If you don't want your routines bandied around willy-nilly, slap a copyright notice on them. Several PD libraries have separate collections of software which is almost as cheap as Public Domain, but is still sold (for very little) – so you most definitely can't distribute it freely. Make sure you're aware of the distinction.

WHERE TO GO

- The CP/M User Group, 72 Mill Lane, Hawley, Dartford DA2 7RZ. The best CP/M user group in the UK and they have lots and lots of quality PD. Bung them a few quid for a copy of the latest newsletter.
- DW Software, 62 Lascelles Avenue, Withernsea, North Humberside HU19 2EB. DW is the source of the marvellous WIMP environment desktop reviewed last month, as well as an gargantuan grab bag of other quality programs. Six clams will get you a PD disk positively bulging with superior software.
- Penguin software Library, Ruxley House, 28 Mount Hermon Road, Woking, Surrey, GU22 7UH (0483 763233). This is a new Library run by Dave Carter which has managed to gather together a very impressive list of PD programs from various sources including some programs that Dave has written himself. If you want to p p p pick up a p p p penguin disk phone Dave on and ask him to send you a copy of his one page newsletter. Each Penguin disk costs 50p for a single side and £1 for two sides. If you want Penguin to supply the disk, then bung on another £3 for every disk you order.
- The Public Domain Software Library, Winscombe House, Beacon Road, Crowborough, Sussex TN6 1UL, Tel: 0892 663298. Send SAE for free C/PM catalogue.· The Pussycat Bulletin Board (V21, V22, V22bis and V23) on 061 236 0351 available 24hrs a day, is a new bulletin board which deals specifically with matters CPC, CP/M and PCW. There's loads of downloads available and no registration fee required (can't be bad!)
- Robot PD Library, 2 Trent Road, Oakham, Rutland, LE15 6HF. Robot has mostly Amsdos programs which include a good range of demos, games and utilities in its list. Send 45p, a blank formatted disk and a SAE for some sample programs or if your one of those retiring cautious types who consider the idea of sending 45p off to an unknown address absolutely outrageous, you can simply send an SAE for a free catalogue. Cassettes are also available, once again send an SAE for a free catalogue
- Scull PD Library. A new library run by Alan Scully up in sunny Glasgow. Software is available on both cassette and disk, and although the library's pretty new, there's already an impressive catalogue of wares. Two cassettes-full will set you back 50p + stamped SAE + blank cassettes, £1 + stamped SAE + blank disk will get you two sides of software. Write to Scull PD Library, 119 Laurel Drive, Greenhills, E Kilbride, Glasgow G75 9JG.
- TUG II 0905 775191 V21/22/22bis/23 8N1. A bulletin board with a lively CPC section and a large amount of downloadable code. The board operates for 23 hours a day (what's this guy doing for the other hour?), so you should be able to make contact.
- WACCI UK, 9 South Close, Twickenham TW2 5JE. Telephone 01 898 1090. As well as being a public domain library, WACCI is a fanzine of truly singular quality. Bung a quid and a half to 9 South Close and you'll receive a smaple issue with the PD lists contained therein.

tion with Richard Fairhurst (from Robot PD) to compile a collection of legal demos. These are harder to find but then they're usually much better – especially if they have tunes written by WEE (the best CPC musician by far.) Both Penguin and Robot have withdrawn demos with ripped off soundtracks and I'd advise others to do the same.

Thanks, Caroline, your timely advice could very well have saved me a rather large fine and a criminal record."

Dave is the one that deserves the pat on the back, for showing such a responsible attitude. For his noble efforts in maintaining the squeaky-clean reputation of CPC/Plus Public Domain, Dave earns the 'Caroline Lamb Seal of Approval' which, as we all know is a passport to *AA*'s magical world of free publicity, in the 'Poking Around the Libraries' section.

If you run a library...

Read, note and inwardly digest the 'Get In Touch' box. The whole purpose of this regular *AA* column is to encourage the growth and availability of the CPC/Plus Public Domain sector.

Thanks to *AA* I've been given the chance to spearhead this movement to inform and promote the UK CPC/Plus PD scene and in addition provide an (almost) authoritative set of guidelines for people who are either running, or thinking of setting-up, their own CPC/Plus PD Library.

Moving on

I was chatting to Richard Fairhurst from Robot PD the other day and he was telling me that he's trying to shift the emphasis away from supplying software on tape and onto disks instead.

The reason is that (due to the publicity I gave him in *AA58*) he is being swamped with enquiries and orders.

A bulging membership list is, of course, quite a healthy thing for a PD Library to possess but copying programs onto tape is a very time consuming process and Richard is finding that there aren't enough hours in the day to go round. Duplicating a tape can take up to half an hour whereas a disk only takes a couple of minutes.

The advantage for users is that with disks, people get their software back faster, even more people can place orders and Richard gets to snatch a few hours shut-eye!

Cassette owners needn't panic, though, Robot will continue to support tape users for the forseeable future – it's just that if you have a disk drive then send a disk instead of a tape. It'll only cost you a measly 5p extra and you'll be making the little lad from Oakham very very happy.

AN ANTARCTIC SEA BIRD

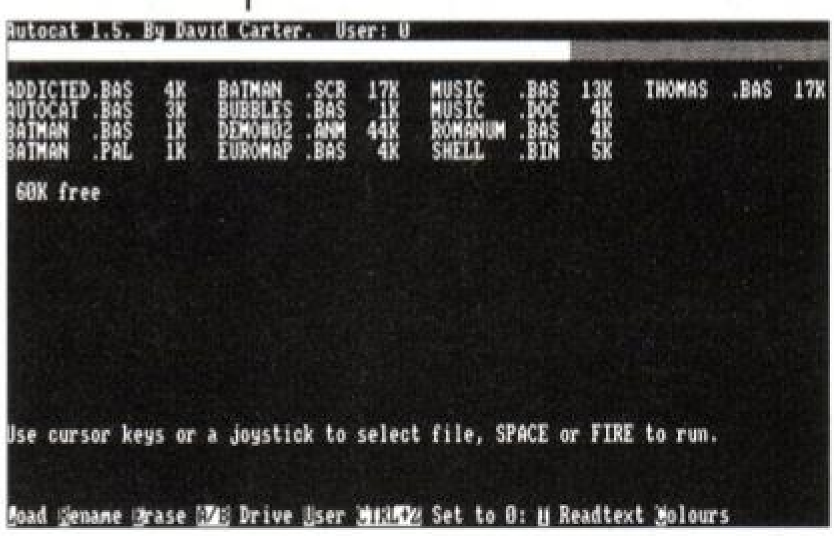
Well how else would you describe a Penguin? OK, so you could also say it was a PD Library operating from Woking and of course you'd be perfectly correct...?

Penguin Software is is a newPD Library run by Dave Carter (see 'A heartening tale'). Dave has managed to gather together a very impressive collection of PD programs from various sources including some programs that he has written himself.



● You want an intelligent conversation? Don't ask *Thomas*!

The other nice thing about the man himself is that he has no hang-ups about people ordering programs from his collection with the idea of people including them in their own libraries. In fact he is prepared to give help to anyone who is considering setting up a new library.



● *Autocat* provides a nice, friendly front end for your CPC.

Each disk costs 50p for a single side and £1 for two sides. If you want Penguin to supply the disk, then bung on another £3 for every disk you order.

If all this interests and you want to p p p pick up a p p p penguin but 50p is all that stands between you and the workhouse, then phone Dave and ask him to send you a copy of his newsletter.

You can contact Penguin software at **Ruxley House, 28 Mount Hermon Road, Woking, Surrey, GU22 7UH or phone 0483 763233.**

Meanwhile, here are some of the programs on offer. The descriptions are Dave's, not mine!

- **THOMAS (PS 03)** – The most insulting version of Eliza you'll ever find! 17K's worth of data ensures that a conversation will last for at least four minutes...
- **ADDICTED (PS 03)** – A small multiple-choice quiz that determines how addicted you are to computers – there's bound to be some question here that rings a bell.
- **BUBBLES, BUBBLES.ANM, SHELL.BIN (PS 05)** – One of the best demos I've ever produced using Discovery's *Animator*. Eight glass bubbles zip about the screen.
- **ROMANUM (PS 02)** – Easy conversion from normal numbers to their Roman equivalent.
- **HEADREAD (PS 09)** – An intelligent header reader for tapes.
- **BATMAN, BATMAN.SCR, BATMAN.PAL (PS 04)** – One of many TV logos I've produced. This one was copied by hand; others on the disk have been traced onto plastic, then to the screen.
- **AUTOCAT** (used as the menu for most titles in the library, eg: PS 02) – Another disk menu program, of which you'll find many. This one doesn't bother to read the catalogue so it's a lot faster. It also has several features such as the ability to read text files or recover erased programs.
- **EUROMAP (PS 03)** – Draws a map of Europe and also detects which machine it's running on.
- **MUSIC, MUSIC.DOC (PS 03)** – Plays Beethoven's Moonlight Sonata and also has a text file illustrating how to compose music from within a BASIC program.

GET IN TOUCH

If you are running a Public Domain Library, write to me c/o the *Amstrad Action* office and tell me all about it. If you want me to review some of your library's programs (think about the free publicity) send them in on a 3-inch disk and I'll have a look.

But if you want your disk returned please scribble your name and the return address clearly on the disk label, not the case label (don't send me disk cases, they get lost).

You don't have to be running a Public Domain Library to get in touch, either. Anybody can write in and tell me about their experiences with PD programs, the libraries that supply them or the back-up service provided.

HELPLINE

Feeling helpful? Just send your name, address, phone number (say if you don't want it printed) and subjects on which you're offering help to: *Helpline*, Amstrad Action, Beauford Court, 30 Monmouth Street, Bath, Avon BA1 2AP. Please write on a postcard or the back of a stuck down envelope and keep it short or you won't get in (or you'll get cut to 'loadsagames').

If you want help contact the appropriate Helpliner – not us. By post include a self-addressed, stamped envelope for the reply – or you won't get one. And phone only in decent hours!

Piracy is not welcome: don't try it, you'll get booted off. Keep it legal. And if you receive SAE's, for heaven's sake return them with some acknowledgement. Finally, if you want to come off *Helpline* just write in and say so.

Help wanted on *Elite* – tape POKE would be nice. I can HELP with *Lords of Chaos* and *Bloodwych*. Penpal wanted any age to SWAP GAMES and pokes tips.
Chris Palmer, 257 The Hides, Harlow, Essex, CM2Q 3QU.

Desparately wanted, Issues 49,50 and 51 of *AA* will swap for *Thunderbirds* or February to October issues of *ACU*. Also swap *Heroes of The Lance* for *Bloodwych.*, *Tolkien Trilogy* or *Bards Tale* (on TAPE PLEASE). I've also got *Adeptus Titanicus, Blood Bowl, D+D, Star Trek* + more to swap for Multiface 2. (Remember to State Your Address). Contact:
J. Boniface, 119 Grinstead Lane, Lancing, Sussex, BN15 9DR

HELP! Need some kind soul to sell me *Boulderdash Construction Kit* on disk. Just write to me, sending details, or give me a nice happy phone call on (0302) 323266. PS Please can I have a witty comment from Rod in brackets ?????? (*daft, ranting clot – ed*)
Mark Berbezier, 47 Lakeen Road, Intake, Doncaster, South Yorkshire, DNZ 5HB.

I have got a game called *Night Rider*, but I am having trouble on it. At the end I can't get the Bismark, I can get the U-boats, E-boats, planes and mines but I can't get the Bismark. Is there anyone who could show me how to bomb the Bismark please?
Amit Ruparetia, 54 Castlcombe Drive, Wimbledon, LONDON, SW19

Penpal wanted, 16 years old, 6128 owner to exchange hints, tips, maps, pokes and Public Domain Software help on lots of games. Need help with machine code.
Brett Ironmonger, 1/32 Kenneth Hopper Place, Whangaparaoa, New Zealand.

Female penpal wanted 12-14. To lend games and swap cheats, pokes. I am 13 and own a CPC 464 (tape). So who will write to a bored 13 year old? All letters get a reply!
Jimmy Brax, 28 Saffron Road, Bracknell, Berkshire, RG12 4BS.

Wanted *Cheatmode* from *AA 42 (Bards Tale)* First person who sends this will recieve *They sold a million 3* (4 games) If they include S.A.E. Help given on *Bards Tale, Bloodwych* and all three *Dizzys*.
S. Wilson, 39 Scampton Ave, Lincoln, LN6 0AT.

Help on *Shadows of Mordor*? How do you move raft?
Thomas Shaddock, 16 Rugby Terrace, High Clarence, Middlesbrough, Cleveland, TS2 1TH.

Has anyone got *Brunword* (6128) which they are willing to part with, any clipart suitable for news sheet and *AA* needed. 1-10, 15, 16 and 18.
David Clark, 16 Hill Road, Barrow-In-Furness, Cumbria, LA14 4HA.

Help! Could anybody give me any tips of solutions for *Dr Scrimes Spook School, Aliens* or *Zub*. (Amstrad 464 tape only).
Susan Douglas, 42 Brisbane Grove, Hartburn, Stochton-on-Tees, Cleveland.

Penpals wanted 12-14 preferably male must have 464 with tape deck and games to swap.
Tim Lancaster, 18 Lower Road, Chinnor, Oxon, OX9 4DT.

Does anyone know the complete solution to the old Amstrad game *Hunchback -The Adventure*. Would be very grateful.
Mr A Postin, 449 Northern Parade, Hilsea, Portsmouth, Hants, PO2 9PU.

Penpals wanted 11 to 13. Able to swap games. Wanted: *Ghostbuster's II, Batman Caped Crusader, Rastan* and *Indy Jones*. Willing to swap : *Predator, Ace 2* and *S.A.S. Assault Course* (Tapes Only). Send SAE for more details.
Noel Hannigan, Kells Dromcollogher, Co. Limerick, Ireland.

Has anyone got *Italy 90, Double Dragon, Strider* or *After burner* on tape. I will swap for *Cyberball, Untouchables, Tiger Road* or *Silkworm*. If you have any of these and wish to swap please 0786 811926 after 4.30pm and ask for **Stuart.**
2 Hill Terrace Cottages, Cowie, Stirlingshire, FK7 7DH.

OI!

***Helpline* is for readers wanting help, tips or penpals, or offering any of the above. No money is to change hands, OK? This page is for *free* help only. If you send in an entry asking for money for your services you're wasting your time and a stamp – it'll be straight in the bin. On the other hand, send in a cheque for £5 and you could go in *Small Ads*...**

Please can you offer any help in my desparate search for a progam made by Amsoft by the name of *Classic Racing*. My original copy was stolen and I have replaced all the other software but my favorite game which I have found unable to obtain. I would like any information you can offer on how to purchase this game. I am willing to pay twenty pounds for a copy, on Amstrad cassette.
Mr. S Webb, 27 New Road, Basingstoke, Hants, RG21 1PR.

Willing to swap games like *Operation Wolf, Rainbow Island, Babarian I* and *II* and most Budget 464/6128/664. Send S.A.E. For list.
Rachel Thomas, 62 Myddynfych, Tirydail, Ammanford, Dyfed, SA18 2DY.

I am willing to swap any two of the following games for *Power Drift* (tape): *Untouchables, Karnov, Italia '90, Chase H.Q, Paper boy, Rock Star* and *Crazy Cars 2*. (All tapes). Ring 0329 236767 or write:
R.Calver, 78 Red Burn Lane, FAREHAM, HANTS, PO15 6HD.

I have been trying to find the tape version of *GFL American Football*, which was part of a Competion from Gamestar. As I receive my magazine every month I look in hope at seeing it printed but to no avail. Could you print it in a future addition or at least inform me if this is not possible. Has anyone got *Gamestar GFL American Football*, tape.
Michael Allison, 4 Southlands, Hemingbrough, Selby Y08 7QY.

Multiface 2 wanted. *Sensible* price paid or swapped for *Pandora, GAC* and a game (464 tape).
Philip Haddigan, 49 Main St, Fairlie, Ayrshire KA29 0AB

Desperately want *Carrier Command*, will swap for *Fighting Soccer* and *Rainbow Islands*. I also want *Vigilante*, will buy or swap.
A. Tadman, 2 Chelston Drive, Newbridge, Tettenhall, Wolverhampton, WV6 0LQ.

Any *Amstrad Action* type-in is supplied on tape or disc. Help given on games programming. Details write to -: **Adrian Sill, 19 Sherwood Drive, Skellow, Doncaster, S. Yorkshire, DN6 8NY.**

Has anybody got the review of the Star LC10 printe from *AA 32* (P/Copy or Original) ?
Michael Bartlett, 26 Highfield Drive, Bromley, Ken BR2 0RX.

Please, has anybody got the Poke to *Gauntlet (the first) 2*. The Warrior, the Elf, the Wizard and Thyra does me crazy !!! Thanks.
Inge Botofte, Frederiksborgves 25, DK-3600 Frederikssund, Denmark.

I'm looking for some very keen Football Manageme Game Fans to swap or buy such software, tips and ideas. I have *F.M. 1+2, Soccer Boss, on The Bench World Champions, Soccer Supremo* etc. I'd also like a penpal, prefer good looking female around 16 (*oh yes? -ed*) but anything considered and answered!!
Matthew Delahaye, 6 Wyndham Close, Chippenham, Wiltshire, SN15 3SE.

I have 32 pokes (7 for discs) ranging from *Harrier Attack* to *Robocop'* (both tapes). 3 Key pokes *New Zealand Story, Batman the Movie* and *Renegade 3*. And maps for *Batman the Movie, Dizzy 3* and the fi levels of *Kettle* (whatever that is). Advice for *Zub* and *Dragon Ninja* and may be a couple more. Also female penfriend wanted Suffolk are Photo please. Only letters with photos will get a reply. Unless of course you want pokes and stuff. Also need help on: *Bloodwych, Hammerfist, Salamader, R-type, Karnov, Rolling Thunder* and *Ghost* and *Goblins*.
Barry Firman, 46 Barhams Way, Wickham Market, Suffolk, IP13 0SR.

I am offering (free) help on all five levels of *They Stole a Million*. If yo have not been able to steal that mil lion or if you require assistance on any other aspect of this game, I will te you how it is done.
P Barone, Martintop Farmhouse, Latimer, Bucks. HP5 1XB

Help! How do you complete *Cybernoid*? I have 2 mi lion points (using cheats) but the same old thing always happens. I also have lots of old *AAs* inc. issu 2 and lots of old games for sale. Please help me.
Rajinder Sehgal, 70 Park Road, Letchworth, Herts SG6 1PY

Wanted: *Blue War* submarine simulation by US Gol for CPC6128, disk only. Reward given to first sende of name and address.
Mr M Marsh, 25 Shakespeare Street, Kilton, Worksop, Notts S81 0QG

Will anyone swap a second-hand mouse for *Dr Doom's Revenge, The Tolkein Trilogy* and *Scapeghost* (all on disk). I am desperate.
B Wickham, 90 Kingsdown Avenue, S Croydon, Su rey CR2 6QH

Teacher who has been asked to help extremely cap ble boy needs books describing the internal hardware of the CPC 464, e.g. the Firmware Guide or other books dealing with the main chips.
Carrick, 54 Stratford Road, Bromsgrove B60 1AU

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AAFTERTHOUGHT

The AA team spares a fond thought for the month gone by...

Autumn, season of mists and mellow fruitfulness. The leaves are turning colour and falling, the nights are drawing in, the clocks have gone back, people's thoughts turn to... hang on, this is the December issue! Well, don't forget that we write this stuff weeks in advance. But it's not too soon to be thinking about... *Christmas.*

Which is why we want you to send in your Christmas present list. We won't give you any of the things on it, of course (what do you think we are?) No, instead, we'll be giving away half a dozen ultra-fabby Spectravideo joysticks to an equal number of especially original readers, those who send in the funniest, daftest, most original etc Christmas lists to: **The *AA* Pressie List Compo** at the usual address. OK?

N.B. We do not approve of anything rude or libellous – unless it's funny. We can't guarantee to print all the winning entries, because we have this sneaking suspicion half of them won't be fit for it...

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If you're under 16, please get your parent or guardian to sign here:

KARTING KOMPO WINNERS!

Here it is, the list of those lucky, lucky winners of our fabulous Karting Kompo. In a few days we're all off to Castle Combe Skid Pan and an afternoon's crashing, banging, skidding, sliding, bumping and boring. And that's only the hire car.

We've hired ace photographer Stuart Baynes to record the proceedings, and even promised him a go in one of the karts if he behaves himself. A full report next issue, including the final winners' placings, retirements, injuries, number of engines blown and all the tales of who took who off at which corner and how many teeth they lost as a result.

And now, the five plucked-from-the-hat winners...

- Richard Dobson, Essex
- Simon Woodley, Weymouth
- Gareth Floodgate, Essex
- Philip Haddigan, Ayrshire
- Mrs A L Hawes, Devizes

And the sender of the best postcard? Well, it had to be Richard Wildey, from London. Here's his entry:



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